1 72

NO 2

## extile

MARCH - 15 - 1947

The history of Textron, Inc., and the story of its operating methods the story of its operating methods are told in "A New Pattern In are told in "A New Pattern In Textiles," by John Alden Spooner. Textiles," by John Alden Spooner. It begins on Page 29 of this issue.

## bulletin

JACOBS

Rubbertzea Fabric Straps

AN ENGINEERED PRODUCT:

Pre-stretched and treated for flexibility and *minimum of adjustment*. Unequalled in resistance to oil and heat, strength and long life. Uniform in thickness.



Immediate delivery in any width or shape.

E. H. JACOBS MFG. CO.

ESTABLISHED 1869

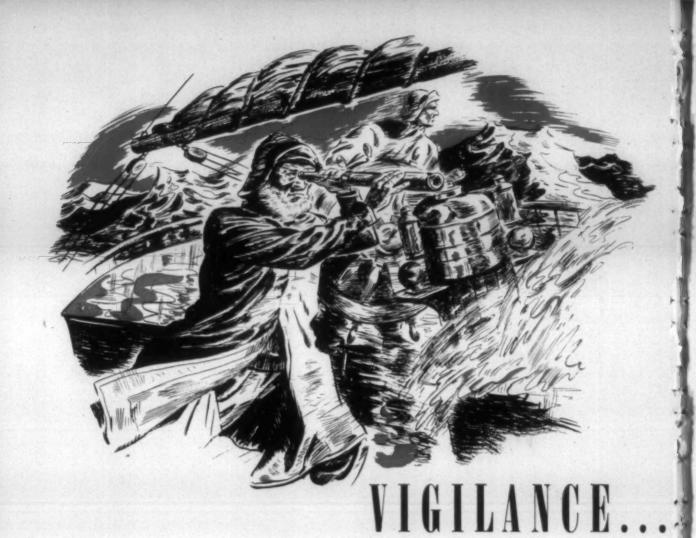
DANIELSON, CONN.

CHARLOTTE, N. C.

B

(ABC)

PVERTISING DEX-PAGE 61



With Old Salts of the Seven Seas, vigilance was second nature. The trusty spy glass and a sharp eye were on the job day and night to bring the ship

You see the connection-American Yarn feels a responsibility much like the old sea captains. For 26 years it has kept a steady watch over the quality of American Durene...to see that you have the finest yarn. Constant research and modern equipment have helped, too.

It all adds up to smooth sailing for you when you specify American

#### American Yarn & Processing Company



Mount Holly North Carolina

MOUNT HOLLY, N. C. MR. EDWIN HUTCHISON IISS E. R. ABERNETHY

W. H. SUTTENFIELD, Vice-President and Sales Manager

CHATTANOOGA, TENN. MR. H. W. DAVENPORT

HIGH POINT, N. C. Mr. E. J. Holbrook

PHILADELPHIA, PA. MR. WM. S. MONTGOMERY

CHICAGO, ILLINOIS

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TEX

4 WAYS BETTER

EXTRA COMPORT EXTRA STRENGTH

EXTRA QUALITY

EXTRA SERVICE

Published Semi-Monthly by Clark Publishing Company, 218 W. Morehead St., Charlotte, N. C. Subscription \$1.50 per year in advance. Entered as second-class mail matter March 2, 1911, at Postoffice, Charlotte, N. C., under Act of Congress, March 2, 1897.



### Who Winds Cotton Yarn On Roto-Coners\*?

More than 400 mills . including those which set the standards for quality. And more cotton spinners are replacing old equipment with Roto-Coners\* than any other machine.

It's the exclusive Rotary Traverse that gives the Roto-Coner\* winding machine highest productivity, lowest operating cost and lowest maintenance cost . . . and gives the winding package superior delivery characteristics,

proper density, perfect appearance

- · One standard traversing device for any one class of work
- Easily convertible from coning to
- · One high winding speed for all yarn
- · No cams or other fast-wearing parts
- Uniform yarn inspection
- · Packages free from roll cuts and underwinds

For lowest cost of manufacturing and maximum assurance of satisfactory results in subsequent operations . . wind cotton yarns (also wool, worsted, spun rayon) on the machine that revolutionized drum winding. Write for Bulletin 144.

#### UNIVERSAL WINDING COMPANY

Providence, Boston, Philadelphia, Utica, Charlotte, Atlanta, Chicago, Los Angeles, Montreal, Hamilton

\*Reg. U. S. Pat. Off.



WARPING CONES DYEING PACKAGES PARALLEL TUBES FOR TWISTING



YOU know that reducing the waste of costly stock to a minimum is an important factor in your mill... the smaller the percentage of waste, the greater your production—and profit!

Precision-made Tuffer Card Clothing reduces waste at the beginning... reduces raw stock losses by improving the quality of your carding... increases the yield of your cards. The benefits of these primary advantages are felt throughout your entire mill. A proper

start means better yarns at lower production costs.

A Howard Bros. representative will gladly examine your card clothing—and make workable recommendations that will cut down excessive stock losses.

#### HOWARD BROS. MFG. CO.

WORCESTER 8, MASSACHUSETTS

Southern Plants: Atlanta, Ga., Gastonia, N. C. Branch Offices: Philadelphia, Pa., Blanco, Tex. Direct Representation in Canada



IMPROVES PRODUCTION ALL ALONG THE LINE



A GENERAL UTILITY
SURFACE-ACTIVE COMPOUND

PENETRANT
DETERGENT
DYEING ASSISTANT
WETTING AGENT

AHCOWET ANS is truly a general utility chemical in the finishing department, having an exceptionally wide adaptability. It has excellent wetting out and penetrating properties, is an effective detergent, and is also used as a dyeing assistant. Other applications include kier boiling and sizing.

AHCOWET ANS is an amber colored liquid, readily soluble in water and equally effective in acid, alkaline and neutral solutions. It is highly efficient in hard water, concentrations of 350-400 ppm of calcium and magnesium salts having no effect. It is also stable to common and glauber salts at concentrations usually employed in dyebaths. It is not recommended for mercerizing, or where the concentration of caustic soda exceeds 2%.

# ANOLD HOFFMAN & CO. IN PROVIDENCE

#### STANDARD DRAVES WETTING TESTS

(Using a 3 Gram Weight with Unbleached Cotton Yarn)

Sinking Time In Seconds
Water 2% Caustic Soda 2% Sulfuric Acid
8 9 10

0.3 8 9 10 0.5 3.5 4 4½ 0.75 1.7 2½ 2½

Sample on request

\*Trade Mark Reg.

#### ARNOLD, HOFFMAN & CO., INC.

MANUFACTURING CHEMISTS

ESTABLISHED 1815 . PLANTS AT DIGHTON, MASS, & CHARLOTTE, N. C. HEW YORK . . BOSTON . . PHILADELPHIA . . CHARLOTTE

Improve Your Spinning-Cut Your Costs!

Get up to



Here you see the larger package produced by paper-tube spinning on the new Joanna Aluminum Adapter compared with conventional warp package.



40% MORE
YARN PER
BOBBIN...

#### Change to Paper Tube Spinning Quickly With Your Present Spindles!

Investigate the many advantages of converting your present spindles to paper tube spinning (straight or tapered bobbins) with the Joanna Adapter. Your spinning will be improved immediately, because the bobbins will be driven correctly—from the top. You will get up to 40% more yarn per bobbin, and doff them every ten hours in most cases, instead of every six hours and twenty minutes for the old wooden type.

Your saving in doffing and spooling alone can pay you 30% annually on your investment in converting with the Joanna Adapter. You will also effect other savings by eliminating waste on the spoolers and reducing ends down as much as 50% an hour.

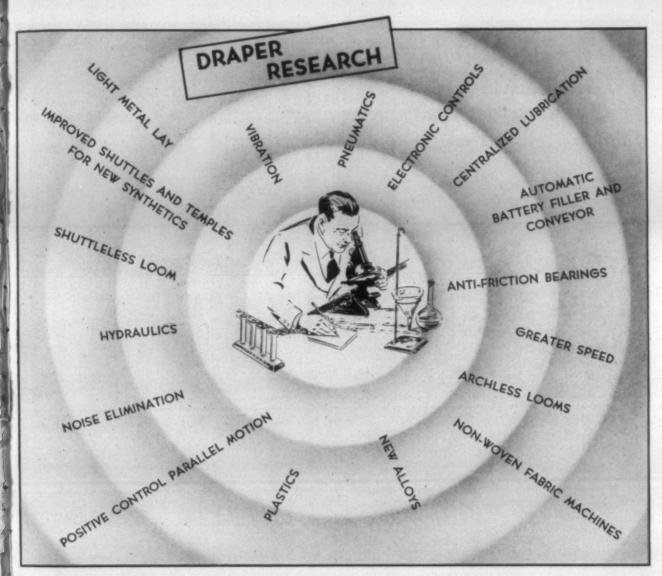
The application of the Joanna Adapter to your spindles (made to your own specifications for the particular conditions in your mill) usually does not exceed \$1.50 per spindle. This cost includes the Adapter and the complete reworking of your present spindles to extremely accurate dimensions. The Adapter is now being used by Joanna Textile Mills Co., Goldville, S. C. and other leading mills.

We invite you to try the Joanna Adapter on one frame and compare the improved results. Send samples of your spindles for quotation.

F.L. REGNERY Earp.

PRECISION TOOLS . PRODUCTION . AND ENGINEERING

613 WEST 16TH STREET . CHICAGO 16. ILLINOIS



#### From the ever expanding circle of ideas . . .

will come new and better methods of producing cloth . . . but they will not come overnight. When any of these ideas are realized it will be the result of slow, methodical, painstaking research and down-to-earth practical tests under mill conditions . . . the iron test of practical use.

In the future, as in the past, you can look with confidence to Draper Corporation to bring you worthwhile and thoroughly tested developments producing more and better cloth, more economically.

RETAINING LEADERSHIP

DRAPER CORPORATION

THROUGH RESEARCH

## HOW TO ADD LIFE TO YOUR CARD CLOTHING



#### Use The Right Stripping Brush Regularly!

Impacted waste, hulls and other foreign matter that the vacuum stripper does not reach can best be removed by the stripping brush. Weekly use of the right stripping brush is not only necessary for good carding but will help you get the maximum life from your card clothing.

To achieve best possible results, it is important that you select the proper type brush. Our service representative will be glad to help you in this selection. He can show you how and why the brush he recommends is best for your needs.

The cost of stripping brushes is negligible, and they should be replaced often. A brush in poor condition frequently causes selvages full of neps, shiners (wire knocked forward), and loose fillets.

Call in your Ashworth service representative for expert advice in stripping brush selection. Then use the right brush regularly.

#### ASHWORTH BROS., INC. AMERICAN CARD CLOTHING CO. (Woolen Div.)

Fall River\*†† Worcester\*† Philadelphia\*†† Atlanta††
Greenville†† Charlotte †† Dallas†† (Textile Sply. Co.)
\*Factory †Repair Shop †Distributing Point

PRODUCTS AND SERVICES — CARD CLOTHING FOR COTTON, WOOL, WORSTED, SILK, RAYON AND ASBESTOS CARDS AND FOR ALL TYPES OF NAPPING MACHINERY \* BRUSHER CLOTHING AND CARD CLOTHING FOR SPECIAL PURPOSES \* LICKERIN WIRE AND GARNET WIRE \* SOLE DISTRIBUTIONS FOR PLATT'S METALLIC WIRE \* LICKERINS AND TOP FLATS RECLOTHED.



3 FACTORIES ... 6 REPAIR SHOPS ... 7 DISTRIBUTING POINTS



FLAT · ROUND OAK · RETAN · CHROME

Made from the finest selection of belting hides
Especially constructed for all types of loom drives

PAGE BELTING CO.

#### VOGEL No. 14 SOUTHERN OUTFIT

A durable, economical closet for Mills, Factories and all types of industrial installation



When installing No. 14 closet trap must be set directly under bowl.

The Vogel No. 14 has a vitreous china top supply bowl, heavy flush valve, reinforced hardwood seat, painted white enameled drum shaped tank and union ell flush connection.

(The Number 14 is not frost-proof)

Joseph A. Vogel Company

Wilmington 99 . Delaware



**PRODUCTS** 

## It's RESULTS you want!

AND there is no other system or method of bleaching that will give you better results than Becco Continuous Steam Bleaching. Ask any user! He will tell you that the Becco Continuous Steam Bleaching System saves equipment because two "J" boxes do the work of nine kiers; that there is a saving up to 55 per cent in floor space; that savings in steam go as high as 75 per cent; that savings in labor and chemical costs reach 40 per cent; that Becco Hydrogen Peroxide is easy to handle being mechanically pumped to the point of use; that the finished product is of a superior quality than that bleached with any other method or chemical.

Don't take chances on your bleaching and finishing operations. Don't experiment and make unnec-

essary expenditures. Becco Engineers and Chemists have many years of specialized bleaching and finishing experience and it can be yours, free! Just drop a note requesting that Becco experts make a survey of your plant and recommend the most efficient and economical method of bleaching, considering the volume of textiles bleached. Their report will be honest and unbiased.



Manufacturers of

#### All Type Fluted Rolls

COMBERS - SPINNING - LAP MACHINES

DRAWING ROLLS A SPECIALTY

We also arrange present drawing frames for long synthetic staple up to and including three inch

#### Gossett Machine Works

West Franklin Avenue

Gastonia N. C.

Phone 213

# Bedden de de la companya de la compa

LAMBETH ROPE CORPORATION
NEW BEDFORD, MASS., U. S. A.







## TEXTILE PROCESS COMPOUNDS

#### MINOTINTS

Oil-base fugitive tints for all synthetic and natural fibers.

Identification — Lubrication — Conditioning

RAYON OILS TINTINOLS LYNOL SS BASE OIL MINEROL MEON

BRETON OILS FOR WOOL

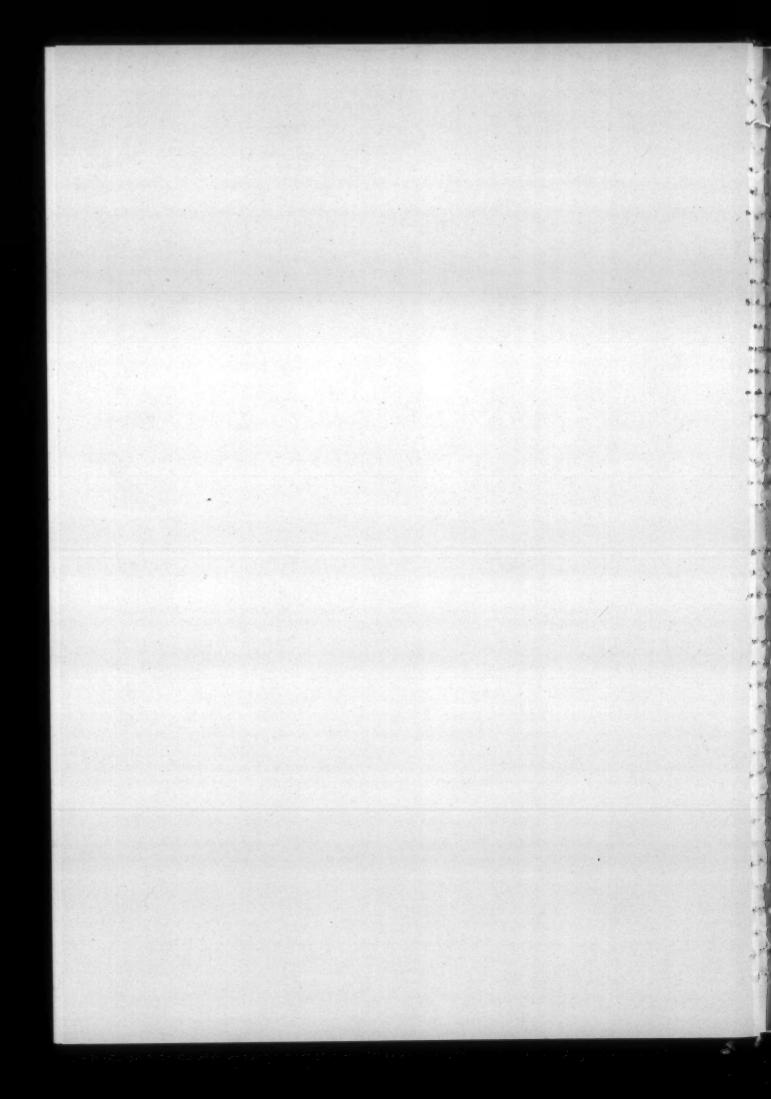
#### BORNE SCRYMSER COMPANY

Offices and Works
ELIZABETH, N. J.

Established 1874

Southern Warehouse CHARLOTTE, N. C.





For scouring, bleaching and dyeing — in hard or soft water...use

HOUGHTON'S

EERINA

#### ... synthetic detergents that beat soap

A series of detergents in powder or liquid form, available now to the textile industry. Cerfak products provide excellent scouring properties in any water—hard or soft, hot or cold. They make creamy, sustained suds, and will not form curds or precipitates in the bath.

Houghton's

We also provide concentrated wetting-out agents under the SURFAX brand, for all wet processing operations. For full data, contact E. F. HOUGHTON & CO., Philadelphia and Charlotte.

PRODUCTS FOR THE TEXTILE INDUSTRY



mused the Soap Sleuth, puffing on his meerschaum. "I was working on a new soap in my 31st Street laboratory, when suddenly I heard . . .



"... a violent rapping on my door! A mill manager hurried into my office, moaning about strange blotches, streaks and stains! I rushed over to search for clues ...



"I had never seen a more modern mill. The sequence of operations was about perfect. But one look through my trusty glass showed the trouble Sir', I said, 'You need Armour's Texscour, the low-titer, red oil base soap!'



"You see, TEXSCOUR, the 8-12° titer flake soap, was the answer in this case. TEXSCOUR really penetrates . . . assures complete removal of oils, dirt, and waxes from all textile fibers! That mill manager now gets his scouring jobs done right. Re-runs and do-overs are a thing of the past! Incidentally, TEXSCOUR is but one of a number of soaps made by Armour for the textile industry. I'm always glad to recommend the soap best suited to the specialized needs of any textile mill."



Armour
INDUSTRIAL
Soap

Armour and Company, 1355 W. 31st., Chicago 9, Ill.



Accurate, in-the-mill, accounting records have proved that the cost-per-hour of operation with Dayco Roll Coverings is definitely less. Whether you use flat or revolving cleaners, whether eyebrowing is a problem or not, there is a Dayco specially engineered for your frames . . . designed to give greater uniformity of yarn and increased production. Dayco Roll Coverings do this because they are engineered with correct cushion, exactly the right coefficient of friction and are unaffected by temperature extremes.

Their surface is tough—never grooves, hollows out, flattens or distorts. Daycos are static-free and lapping-up is practically unknown.

Let us prove these specially engineered coverings can help raise your quality standards at the lowest net roll covering cost. Write today to Dayton Rubber, Dayton, Ohio, or

TEXTILE PRODUCTS DIVISION, DAYTON RUBBER
Main Sales Office: Woodside Bldg., Greenville, S. C.
Factory: Waynesville, N. C.

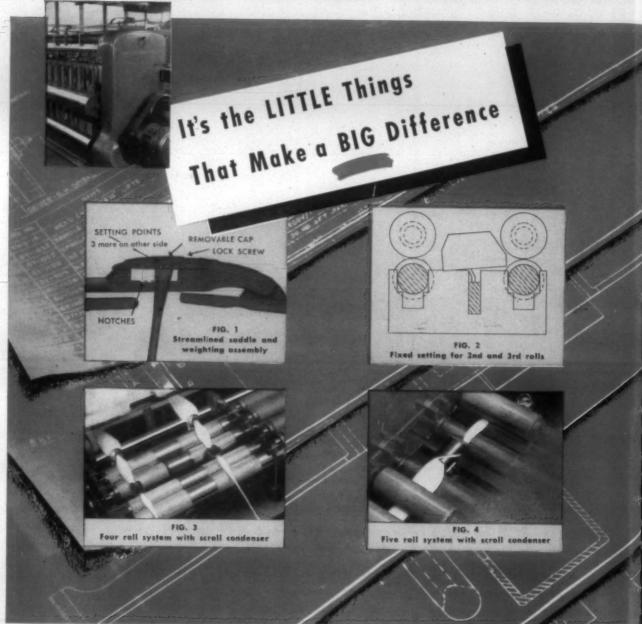
THESE Mill Proved PRODUCTS WILL SAVE YOU TIME, MONEY AND MATERIALS

BOX LOOM PICKERS · BOX LOOM PICKER BUMPERS · CONE BASE PADS · FROG AND LOOM BUMPERS · HOLD-UP STRAPS · LONG DRAFT APRONS · LOOP PICKERS · LUG STRAPS · ROLL COVERINGS · RUB APRONS · SLASHER ROLLS · TAKE-UP ROLL COVERING · TEMPLE ROLL TUBING · VIBRATION DAMPENERS · WOOLEN AND WORSTED COTS



Waynesville, N. C. plant, devoted exclusively to manufacturing textile products designed to help you produce finer textiles more economically.

## H&B HIGH-DRAFT SI



## H&B AMERICANM

\*Conventional 3 roll frames are furnished when necessary.

Builders of Modern
FACTORY, EXECUTIVE OFFICES AND EXPORT

TEXT

## SLUBBER (4 or 5 roll)

No development in textile history has been accepted with greater enthusiasm than high-draft in the card room. This is because no other development has been able to effect such savings without reducing the quality of product. High-draft roving cuts costs by eliminating from 1 to 3 operations and theoretically maintains quality by doing the right thing at the right time, namely drafting the fibres when they are still untwisted.

H & B High-Draft Roving achieves complete *practical* success in maintaining quality by careful design and coordination of many small details. 440 drawings are required for one size of frame. Doing the right thing in the right way is made possible by attention to the LITTLE things that make a BIG difference in results. Here are a few of the little things to which we give our special attention.

**BUILDER MOTION** — This mechanism is so dependable that no hand adjustments between doffs are necessary. It *automatically* eliminates the problem of stretched roving. Neither the use of accurately profiled cones alone, of a positive belt shipper, nor of other precision parts is responsible, but the combination and coordination of all three.

**POSITIVE ROLL WEIGHTING** (Fig. 1) — This mechanism (plus our scroll condenser) eliminates the danger of "link sausage" roving and also eliminates unauthorized tampering with weighting. Saddles are notched and marked for 5 separate stirrup weighting positions. Once the stirrup is properly located it is impossible to move it without removing a cap on top of the saddle, which is held in place by a set screw. There are no adjusting screws for the operator to "play" with. Saddle is streamlined for easy cleaning and self oiling.

**SCROLL CONDENSER** (Figs. 3 & 4) — Here is a polished performer that grows smoother with use. Our Bakelite patented Scroll Condenser eliminates static, prevents flaring and spreading of fibres by condensing them into compact slivers without disturbing parallelization, and gives just enough false twist to allow better control in drafting. It comes to us as smooth as glass, gets even smoother with use, does not absorb moisture or become sticky, and gives no trouble after long shutdowns.

FIXED SETTING BETWEEN 2ND AND 3RD ROLLS (Fig. 2) — The distance between the second and third rolls, where condensation of fibres takes place, MUST remain constant. Therefore the second and third rolls are set at a fixed distance from each other in a cradle and the scroll condenser is held in a fixed position between them. Scroll and rolls are set as one unit.

**EASY DISTRIBUTION OF DRAFTS** — Our Universal Head Gearing Unit permits intermediate draft adjustments without changing the overall draft.

These are only a few of the many "little" things that make a BIG difference.

## MACHINE CO.

Textile Machinery

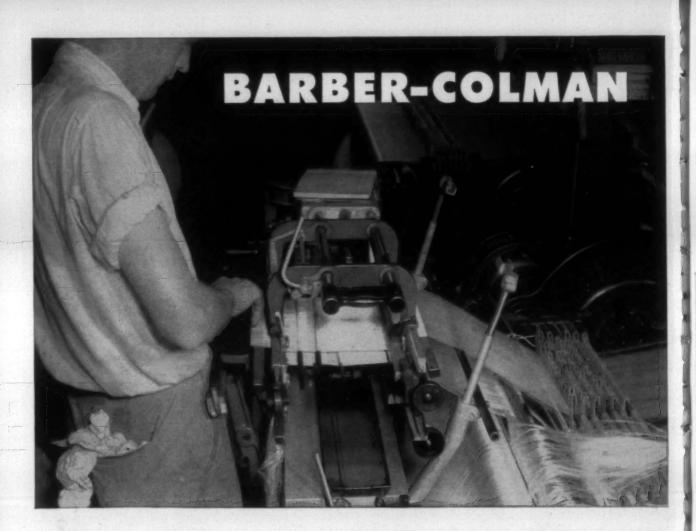
DIVISION

PAWTUCKET, RHODE ISLAND, U.S.A.

#### BRANCH OFFICES

ATLANTA, GA.

815 CITIZENS AND SOUTHERN
NATIONAL BANK BUILDING
CHARLOTTE, N. C.
1201 JOHNSTON BUILDING



#### PORTABLE WARP TYING MACHINES MAKE SUBSTANTIAL



#### COST SAVINGS IN SMALL MILLS

Many of the smaller mills are finding that a Barber-Colman Portable Warp Tying Machine is a profitable investment—even though its full-time capacity is not needed or used. This machine offers a fast and accurate means for tying-in new warp at the loom. It can be handled satisfactorily in confined and hard-to-reach spaces and in loom alleys as narrow as 12". An inexperienced hand can learn to operate it capably in a comparatively short time. Overall production capacity of the machine averages 3500 to 4500 ends per hour, varying with the sley of the warp. On high sley warps, production may run as high as 5500 ends per hour. Interchangeable knotter units enable the machine to tie a wide range of counts, and models are available to handle cotton, wool, silk, or synthetics. Tying is accurate and uniform and so much more efficient than common hand methods that the machine will pay for itself quickly in cost savings. For full details and specific recommendations for your mill, consult your Barber-Colman representative.

AUTOMATIC SPOOLERS . SUPER-SPEED WARPERS . WARP TYING MACHINES . DRAWING-IN MACHINES

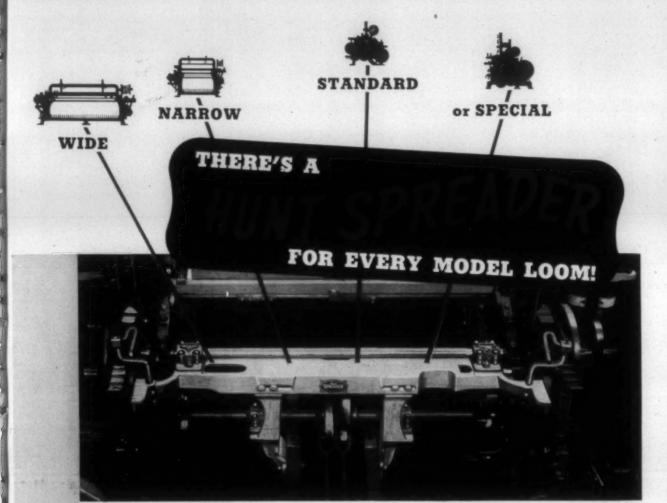
#### BARBER-COLMAN COMPANY

ROCKFORD • ILLINOIS • U.S.A

FRAMINGHAM, MASS., U. S. A.

GREENVILLE, S. C., U. S. A.

MANCHESTER, ENGLANI



MORE PRODUCTION from a great variety of looms has been accomplished in more than 200 mills from Maine to Texas, where patented Hunt Spreaders have been installed on looms of all makes, models, and ages.

MORE STABILITY through reduced vibration allowed speed increases of from 12 up to as many as 36 picks-per-minute.

MORE CONTINUOUS and trouble-tree operation produced better quality fabrics-cotton, wool and rayon-at a lower cost and a higher profit per yard.

By the addition of Hunt Spreader "backbones" to present looms these mills are assured of longer loom life and more dependable day-today operation.

You, too, can achieve the same results by installing patented Hunt Spreaders in your weave room. Be it fifty looms or five hundred, our factory-trained erectors can make the installations with slight interruption of production.

> Write or wire today. It's likely we can arrange for you to see a Hunt Spreader installation in your vicinity.



You will want this catalog for your files. In it you will find illustrations and complete descriptions of all Hunt Textile Equipment. Write for your copy today.

Hunt Equipment is Manufactured and Distributed by

MOUNTAIN CITY FOUNDRY & MACHINE CO. GREENVILLE, SOUTH CAROLINA



#### WHEN YOU ARE IN THE MIDDLE ...

#### here's a man who can help you out

WHEN you are in the middle—between bad-running spinning or twisting and a management that is pressing for better production and quality—it's a good time to talk to a Victor Service Engineer.

He has been in on thousands of spinning and twisting problems, and seen them through to a successful solution. He can not only recommend the right traveler for the job, but can often make other suggestions for improving yarn

quality and production that will change front office complaints to compliments.

Now, in the face of increasing competition for peacetime markets, you need his resourceful cooperation—the friendly, result-getting Victor service that has made Victor Travelers standard for over 8,000,000 spindles of spinning and twisting throughout the industry.

New fibers, new blends that inorease your problems are seldom new to the Victor Service Engineer. You find him ready to share his important information on any fiber. Write, wire or phone the nearest Victor office...for prompt service.

#### VICTOR RING TRAVELER COMPANY

PROVIDENCE, R. I. . . . . 20 Mathewson St. . . . Tel. Dexter 0737 GASTONIA, N. C. . . . . . . 358-364 West Main Ave. . . . . . Tel. 247



All Silk

#### LOOM HARNESS EQUIPMENT

necessary for the economical weaving of silk of any denier.

#### FLAT STEEL HEDDLES

(Stainless and High Carbon Steel Nickel Finish)

LOOM HARNESS FRAMES ALL METAL LOOM REEDS

(Stainless or Regular Steel)

TEMPERED SOUTHERN SHUTTLES

WARP PREPARATION EQUIPMENT Drop Wires and All Types of Loom Harness Equipment

Ste-hed-co

Greenville, S. C.

Products of Science

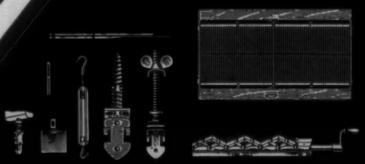
Atlanta, Ga.

Montreal, Que.

Be it a delicate silk heddle or a heavy duck heddle—a frame—reed—shuttle—or in fact anything pertaining to LOOM HARNESS EQUIPMENT, this Company produces it scientifically—with the utmost care and attention. We are not limited to one plant but have four large plants strategically located to render the most intimate and personalized service to those located in that area. Everything that science, experience and money can buy has been done to give you, the user, the most satisfactory product

QUALITY LOOM HARNESS EQUIPMENT LOOM HARNESS **EQUIPMENT** 

you can buy.



#### STEEL HEDDLE MFG. CO.

2100 W. ALLEGHENY AVE., PHILADELPHIA 32, PA.

## SOUTHERN SHUTTLES DIVISION

621 E. McBEE AVE., GREENVILLE, S. C.

OTHER PLANTS & BRANCH OFFICES

Greensboro, N. C. Providence, R. I. Montreal, Can. Atlanta, Ga.



Questions, answers and other material submitted by the readers for use in this column should be addressed to Field Editor, Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C. Material need not be in any particular form, since it will be properly edited before publication.

#### LINT FROM THE OPENING ROOM

Dear Sir:

In the Bulletin Board [published in your issue No. 10 of Jan. 15, 1947], you state that Contributor No. 16 is just one jump ahead of the gun, etc., and that an article on Textile Mill Ownership [changes] in North and South Carolina will appear within a month.

We are interested in the article mentioned and presume this will be in the Feb. 15, 1947, issue . . . .

J. E. Hull, Manager, Victor Ring Traveler Co.

Providence, R. I.

As it turns out TEXTILE BULLETIN'S Field Editor ended up not one, but several jumps ahead of the gun and apologizes with a red face for premature notice given reader Hull and others. The facts:(1) The article was to come from TEXTILE BULLETIN'S Chief Editor;(2) N. C. State College turned up with a sensational basket ball team; (3) We haven't seen much of the Chief Editor lately ourselves. The article will appear shortly, we hope.—Eds.

Gentlemen:

We would like very much to know if you can supply us with a list of companies who sell suggestion boxes, bulletin boards, etc., which go to make up the employees' suggestion systems . . . .

L. O. Benoliel, Vice-President, Quaker Chemical Products Corp. Conshohocken, Pa.

Two firms furnishing suggestion system service to industry are Morton Mfg. Co., Suggestion System Division, 5105 W. Lake St., Chicago, and Elliott Service Co., 219 E. 44th St., New York.—Eds.

Dear Sir

Please send me the book that is edited by Dean Thomas Nelson and entitled "Practical Textile Designing."

J. O. King, Ass't. Sup't. Saratoga Victory Mills, Inc. Guntersville, Ala.

Any other readers who would like to have a copy of this excellent book just drop us a line. See below for price.—Eds. Gentlemen:

In your next issue of The Bulletin Board I would appreciate very much your including a list of the technical books published by your company, and the prices.

Contributor No. 20
¶ Herewith a list of the books we publish:

(Clark) 3.0

Practical Loom Fixing (Nelson) 5th
Edition 2.0

Erecting, Overhauling and Fixing

Principles of Knitting (Shinn) .... 3.00

Will you please send us a copy of your Electrical Power and Light Wiring Code Book when it is available. E. T. Boger, Vice-Pres.,

Boger & Crawford Spinning Mills. Boger City, N. C.

¶ Mr. Boger refers to the 1946 issue of the National Electrical Code, which TEXTILE BULLETIN offers to secure for readers through the services of its Master Mechanics Section. The Code Books are expected to be available soon.—Eds.

Dear Sir

If possible will you please advise me if there are any manufacturers in this country who make a material such as Masalin, made by the Chicopee Mfg. Co., and Webril, made by the Kendall Mills.

Textile Products Manager, Reynolds Metals Company.

Richmond, Va.

¶ Anybody know?—Eds.

Gentlemen:

We would appreciate receiving reprints of your articles "Synthetic Resins in the Cloth Book Industry," and "Editors Take a Look at Pad-Steam and Multi-Lap," which appeared in the Oct. 15 and Nov 15 issues of Textile Bulletin.

Anne Uraneck, Librarian, The Aspinook Corporation.

Lawrence, Mass.

Dear Sir:

I have just read the January 1 issue of the TEXTILE BULLETIN in regard to welding crankshafts... In this article it states that the job of welding a crankshaft costs about two dollars. This job of welding crankshafts can be done cheaper than the article claims. I have over one hundred such crankshafts that have been running for over a year at the rate of 182 picks per minute and we know that the crankshaft takes a good beating at that speed.

Another thing, the textile mills should all have a welder hired to do nothing but welding because a first class welder can overpay his weekly check ten times in a run of a year, but it's hard to make the mills see this point. I saved one mill from having to re-cover five machines because I could weld copper, so you can see what a saving a good welder can do for any tex-

tile mill.

I want to say that I really and truly enjoy reading my TEXTILE BULLETIN. Keep up the good work and print more about Gas and Electric Welding.

B. F. Lewis,

Clinton Welding & Repair Service. Clinton, S. C.

Mr. Lewis refers to the article entitled "Reversing Worn Crankshaft Ends," from Linde Tips, Linde Products Co., which appeared in the January 1 TEXTILE BULLETIN.—Eds.

Gentlemen:

We receive each month a copy of your TEXTILE BULLETIN which we find interesting and informative. The last issue we looked through very carefully hoping to run into an advertiser who could supply us with an item which we need. What we refer to is a spindle oiling and cleaning device that was shown to us by someone who called at our plant, and who we believe was located in Greensboro or Charlotte. To the best of our recollection, this device was arranged to hook on to an air supply for either putting oil into the spindles or removing the oil by a jet pump action.

If by chance someone of your staff should



know of the supplier and the particular item we described, or anything similar, we would consider it a kindness if you will let us know.

Jefferson Mills, Inc.

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Pulaski, Va.

Dear Sir:

Really appreciate your letter and the address of Textile Specialty Co. Had written to Mr. Underwood of Sapona Mfg. Co. as well as to you; both of you gave me the address, and we believe it goes to show that both your good paper and other friends really help at times.

Jefferson Mills, Inc.

Pulaski, Va.

¶ Glad to be of service anytime.—Eds.

Dear Mr. Clark:

Once again I have answered an inquiry— "What is your favorite magazine relating to your work?" Answer—Textile Bulle-TIN.

For many years you have performed an invaluable service to the Southern textile industry and this is my way of saying "Thank You."

Chas. H. Henery, President, Santee Textile Mills

Bamberg, S. C.

¶ Thank you, Mr. Henery.—Eds.

Dear Sir:

I have been a patient here since returning from 27 months in the South Pacific. The boys and myself have been making leather billfolds but have been [almost] discouraged by not being able to obtain leather. We can use scrap but haven't been able to obtain a supply. We have been able to get some but they make us take a lot of white leather we can't use. All we want is to break even or a little above. The American Legion advised me to contact you for a list of roller mills using natural calfskins, or anyone from whom we could obtain any kind of scrap except the white kind [it is too soft for billfolds].

The doctor says keeping busy is our best medicine and we all enjoy the work on billfolds. So anything you can do to help us will be greatly appreciated.

> Clarence B. Lewis, N. C. Sanatarium

Sanatarium, N. C.

This letter appeared in the last issue of the Bulletin Board. Inasmuch as no response has yet been forthcoming, we are reprinting the letter in the hope that someone who can be of help to these boys will take the time to write in with the information they desire.—Eds.

#### MISCELLANY

MODERN VERSION OF THE TWENTY-THIRD PSALM

Science is my Shepherd, I shall not want. It maketh me to lie down in an in-a-door bed that will fold away in the daytime, creating the illusion that we have a large apartment.

It leadeth me to breakfast that has been assembled from the ends of the earth; it transporteth me to the city on wings of

steam or electricity, while I read the news that has been gathered for me through the long night.

It furnisheth my office with half a hundred willing slaves that go by the name of 'elevator,' "dictaphone," "comptometer" and the like.

It sweepeth my wife's floors, washeth her dishes, ordereth her groceries, keepeth the germs out of the baby's milk, maintaineth 70 degrees Fahrenheit inside the house, 45 degrees inside the iceless icebox, and 212 degrees on top of the gas stove. It furnisheth her with radio music, salad recipes, and the President's message while she watcheth the scientific things hum and buzz. It restoreth her school-girl complexion, waveth her hair, and maketh her seem altogether vouthful.

MEANWHILE it leadeth me into strange paths of ethical conduct, where, under the guise of "service"-vainly so-called-I can continue to fleece my fellow man and make 27 per cent on my money, which money I need in order to meet the bills on the first of the month, and thereby keep up the bluff that we are prosperous.

Yea, though I walk through the valley of the shadow of death, I will fear no evil, for I will have my tonsils, adenoids, and vermiform appendix removed, my sinuses drained, my vertebrae adjusted, my spinal column punctured, and my stomach reno-

FOR SCIENCE is with me, its test tube and laboratory findings they comfort me. It prepareth a well-filled table before me in the presence of those who are less fortunate in the scramble for place and power; it anointeth my head with staycomb; my cup runneth over.

Surely goodness and mercy shall follow me all the days of my life, and I shall dwell . . . I . . . shall . . . dwell . . . on earth as long as I possibly can, and come to the end with an overwhelming sense of the emptiness of life, and I shall be filled with regrets forever.

The Springs Bulletin

Button, Button . . . In Spokane, Frank Bunker received from W. A. A. 600,000 yards of thread, 50,000 shirt buttons, barrel of laundry ink thinner; wondered what puzzled laundry was opening up the pipe, rivets and steel he thought he had ordered.—Time.

Politeness is like an air cushion—there may be nothing in it, but it eases the jolts. -The Swirling Column, American Monorail Co.

#### I BELIEVE

I believe that discontent is the chief source of all our troubles, but also of all our progress.

I believe in a democracy there is much complaint and little suffering. In a dictatorship there is much suffering and little com-

I believe one cause of misery and ruin s our failure to go through with unpleasant

I believe that most labor troubles are provoked by those who don't labor.



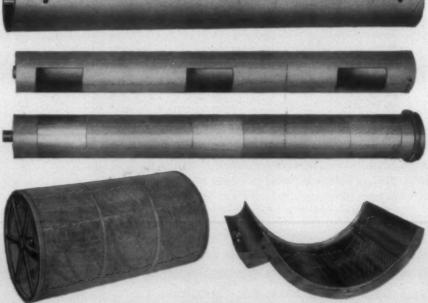
#### WITH OUALITY PRODUCTS

... Nor is anything as costly as lost production due to mechanical failures or inefficient machinery performance.

Service-prompt, efficient, dependable service with a complete line of sheet metal parts for preparatory machinery has been our business for almost twenty years.

May we serve you?

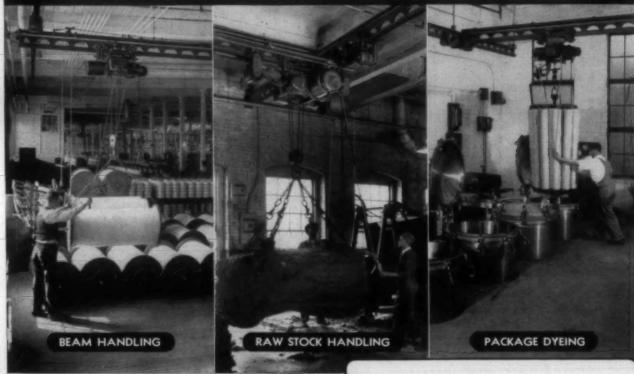




GASTONIA TEXTILE SHEET METAL WORKS, Inc. GASTONIA, NORTH CAROLINA

A SHEET METAL WORKS SERVING TEXTILE MILLS

#### TEXTILE MILLS BOOST EFFICIENCY - with CLEVELAND TRAMRAIL





Efficiency - meaning costs and output of product — has been greatly improved in many textile mills with installation of Cleveland Tramrail, even with other production facilities remaining the same.

During the period following the war it is predicted that the use of Cleveland Tramrail will be accelerated tremendously because textile mills will require more efficiency in operation than ever before if they wish to remain in a favorable competitive position.

No other machinery offers as great returns for the small investment required as overhead materials handling equipment.

MARSHALL FIELD & CO., SPRAY, N. C. Upper Left: Upper Middle: PROXIMITY MFG. CO., GREENSBORO, N. C. Upper Right: STEAD & MILLER CO., CONCORD, N. C.

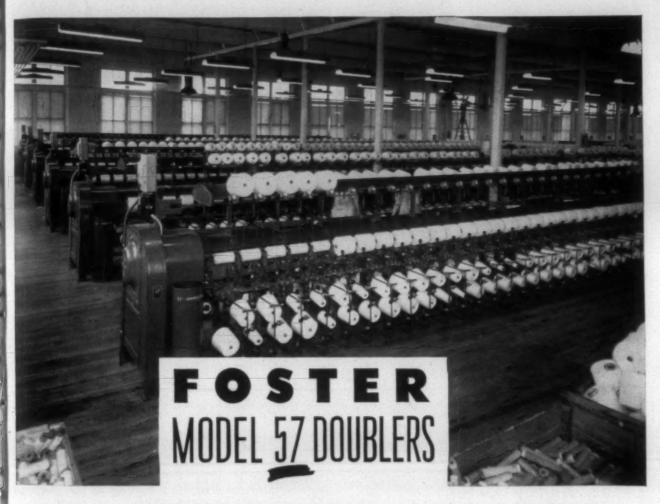
Lower Left: GREGG DYEING CO., GRANITEVILLE, S. C. MATERIALS HANDLING TRAINED SPECIALISTS

CLEVELAND TRAMRAIL CAROLINAS CO. DIV. OF

S. R. BROOKSHIRE ENGINEERING SALES CO.

BUILDERS BUILDING CHARLOTTE, N. C.

TEXT



#### • AT CROWN MANUFACTURING CO. ("Crown College")

CROWN MANUFACTURING COMPANY of Pawtucket, R. I., has a long standing reputation for quality products. It is not strange therefore that this company standardized on Foster winding and doubling equipment only after exhaustive tests.

Crown handles from 8/1 to 40/2 in spun rayon, fine cotton and blends for gabardines, tropicals and cavalry twills, and uses two process doubling. 8½" diameter supply cones weighing 4½ lbs. are wound and inspected on Foster Model 102's, while doubling is done on Foster Model 57's. Only two ends are being doubled in the illustration, but up to five ends can be handled on the Model 57, if desired. The packages shown here are 7" traverse, 8½" diameter and weigh 4¾ lbs. each.

Crown Manufacturing Company and many other leading textile manufacturers use Foster Model 57 Doublers because they assure uniform twisting, eliminate "corkscrew" yarn and dropped ply. This is done economically and efficiently with the help of the following features:

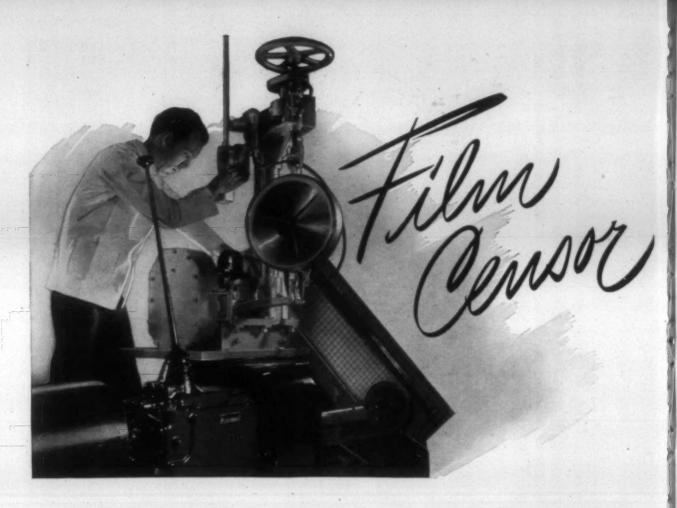
- 7 Ends go from doubling roll to the traverse guide in back of package without any sharp bends. Minimum strain on yarn.
- 2 Guard on thread roll prevents yarn from jumping off doubler roll when threading up.
- 3 Quick-acting stop motion, with an efficient brake that comes up under package and contacts the full length of the tube, leaves sufficient yarn for single end piecing when the supply runs out.
- 4 Tension and slub catcher (when required) for quick threading and automatic yarn inspection.



CIRCULAR A-90 ON REQUEST

#### FOSTER MACHINE CO., Westfield, Mass., U. S. A.

SOUTHERN OFFICE - JOHNSTON BUILDING, CHARLOTTE, N. C.;
CANADIAN REPRESENTATIVE - ROSS WHITEHEAD & COMPANY, LIMITED, UNIVERSITY TOWER BUILDING
660 STE. CATHERINE STREET WEST, MONTREAL, QUEBEC



The alert technician in the illustration is censoring film-the strength of film in Sinclair industrial lubricants designed for protection of your valuable machinery.

These tests prove that Sinclair lubricants have the film strength to keep moving metal parts separated under extreme temperature and pressure conditions. With the SAE film strength test machine, skilled laboratory technicians check constantly, reject substandard product, assure you of essential protection.

Every batch of lubricant in process gets an equally careful check for other all-important qualities. Constant research by Sinclair assures you of the benefits of new developments in film strength...and in all other prime lubricant qualities.

#### Sinclair Textile Lubricants

LILY WHITE OILS For Spindles

#### NO-DRIP LUBRICANTS

For Coulier Motion

Rocker Arms, Gear and Camshaft Bearings, and Half-speed Shock Absorbers

RUBILENE
For Air Compressor and Vacuum Pumps

#### COMMANDER OILS

For General Mill Lubrication

BEARING GREASE AF
For Anti-Friction Bearings

AVENUE, NEW YORK 20, N. Y.

FINEST CRUDES + EXPERT RESEARCH

and MANUFACTURING CONTROL

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## textile bulletin



Vol. 72

March 15, 1947

No. 2



#### A New Pattern In Textiles

By JOHN ALDEN SPOONER, Vice-President
Public Relations and Advertising, Textron, Inc.

-Address Before Charlotte (N. C.) Advertising Club

TELLING the story of Textron is the easiest and toughest assignment a man could have. It's easy because it is, I think, a truly unusual and exciting story. . . . The story of a small, practically unknown company that has become, in a comparatively short time, one of the largest textile organizations in the United States, with a consolidated sales volume now at a hundred million dollar annual rate, with 32 mills in seven different states, employing over 15,000 people and with cloth output exceeding 41/2 million yards a week.

It's a tough assignment because Textron not only has been growing—it has been revamping and consolidating its position in ways that should spell increasingly efficient production and distribution of its products.

Textron's expansion of facilities and organization has been rapid but it is orderly and meaningful. And it is meaningful beyond the immediate aim of building a strong, progressive business enterprise. It is meaningful, we sincerely believe, to the individual consumer, to thoughtful retailers, to the textile business as a whole, and to America's industrial strength and stability.

We at Textron are preparing ourselves for the return of wholesome competition, for the kind of a market where value and price—and not mere scarcity—are dominant considerations of consumers. This in itself should cause no alarm, nor is it necessarily synonymous with depression. It is fashionable these days to warn business men of a coming recession in business, but in none of the basic barometers can we find cause for alarm.

Superficial comparisons are being made by alarmists with 1920-1921 conditions. I say "superficial" because while there undoubtedly have been price maladjustments they are being rapidly corrected and there is no deep-seated monetary reason for an extended depression. The National City Bank of New York points out that there is a radical difference in our monetary situation now and in 1920. Our money supply, consisting of currency outside of banks, and deposits against which people can write checks, is estimated at 108 billions of dollars. It has tripled since the beginning of the war, it is circulating slowly by all past comparisons, and it is backed by an unparalleled volume of liquid assets. Moreover, the bank points out it is almost impossible that it can shrink by any substantial extent in any short period. This is not the background for an extended depression!

Certainly no business man with a grain of common sense

expects to see maintained the exaggerated economic conditions through which we have just passed, and through which we are still passing. We have witnessed a condition where consumers have rushed, so to speak, into a vacuum to fill long pent-up demands . . . buying goods with little regard for cost or quality. Obviously, this is a passing phenomenon. The transition is already under way. Two of New York's greatest merchandisers—Jack Straus of Macy's and Bernard Gimbel of Gimbel Bros .- in their forecasts for 1947 stress the underlying change that is taking place, including the public's demand for greater value, but both predict a volume of retail business well sustained at the high levels of 1946. We find, too, in the forecast of Harry H. Schwartz, president of National Department Stores Corp., the expectation that sales for the first half of this year should equal or exceed those for the similar period a

Our feeling at Textron is that the public will continue to buy nationally advertised products where the quality is good and prices are reasonable. For merchandisers, the best insurance against inventory losses and the tying up of working capital in unprofitable goods is to concentrate on fastmoving merchandise with a wide public acceptance. That is why our advertising and promotion budget this year is geared to reach a consumer market of more than 27 million families

Our whole operation at Textron is designed to produce goods more efficiently through a rigid control of both expense and quality. That is what we had in mind when we started acquiring mills and talking about vertical integration. We believe we have built soundly and that we can create jobs, sales and income and in that way make a contribution to civilian living that will parallel our contribution to the recent war effort.

We of the textile industry face not just one, but a combination of challenges. The first, and insistently pressing, is to get quality products at reasonable prices to the greatest number of consumers. The second, of more fundamental importance to the industry and the nation, is to build with sufficient courage, vigor and vision to assure a sound future. And the third, which will be assured if the second is realized, is to put our textile industry in a position to maintain unchallenged superiority over foreign competition.

Textron proposed to do its part in meeting this triple challenge—and it has started by smashing a tradition, by

introducing a new concept in textile manufacture and merchandising. As you know, most textile products in the past have been made piece-meal by independent companies each doing a separate operation—twisting, blending, weaving, printing, cutting, sewing and selling. The Textron idea—an idea now realized—was to do all these operations within one organization.

We wanted the kind of value that can be offered with streamlined production methods. We wanted the kind of quality that can be assured by a single rigid standard applied in every step of manufacture. In short, we wanted to produce top-quality, brand-name textile products with the same sort of vertical, integrated organization that has made American automobiles, airplanes and radios the best value in the world.

In the synthetic textile field, this was a bold departure from the traditional way of doing business. But, paradoxically, we feel that in smashing one tradition we have recaptured the spirit of a much earlier and finer one—one that goes clear back to the founders of the textile industry. That is the spirit of industrial adventure—of faith and foresight in exploring new frontiers.

#### How Textron Got Started

Before describing in detail what we're doing today, I'd like to tell you briefly how Textron—and the Textron idea—was born. Textron's original predecessor company, which limited itself to the processing and sale of rayon yarns for the trade, set up shop in 1923 with three employees and ten thousand dollars of borrowed money. But it was a lusty brain-child. By 1941, the company had grown to one employing 1,800 persons and doing an annual business of seven million dollars. Its course was charted for further growth.

That was as of Dec. 6, 1941. The next day, bombs that fell on Pearl Harbor blasted all our neatly laid plans skyhigh. Like other industrial plants, Textron's predecessor company pigeon-holed all its plans and jumped into the manufacture of parachutes. From that operation we broadened our line to include a diversity of hard-to-make sewn products.

When the war ended and with it came the cancellation of wartime production, we at Textron were faced with the alternative of retrenching or going boldly forward. We decided to make our dream of vertical integration come true in terms of spindles, looms, designing boards, sewing machines and salesmanship. Instead of firing, we hired. Instead of selling plants, we bought new ones to round out a yarn-to-you organization.

Today Textron handles every process in the manufacture of its products—from the raw fiber until the finished article reaches store counters. We have grouped our operations under separate corporations. The principal companies comprising the Textron organization today are the parent company, Textron, Inc., which is an operating company, and the manufacturing subsidiaries, Lonsdale Co., Nashua Mfg. Co. and Textron Southern, Inc. The manufacturing subsidiaries have spinning, weaving and finishing facilities and two of them manufacture products with well established trade names.

Lonsdale Co. weaves and finishes fine cotton goods. The Nashua Mfg. Co. produces blankets, sheets, pillow cases and Indian Head Cloth. In addition to the spinning and weaving operations Nashua, through its Manville Fabrics Division, is engaged in the converting business. From the company's own mills and from other subsidiaries of the corporation this division obtains its supply of fabrics in the gray. The finishing of these fabrics is performed, in part, by the mills of the Nashua Division, in part by finishers not affiliated with the Textron organization. Textron Southern, Inc., was formed to acquire the properties of Gossett Mills which, with its subsidiary Chadwick-Hoskins Co., operated 12 mills and a bleachery in North and South Carolina. Also in this operation are the mills at Cordova, Ala., formerly a part of Nashua.

Today the manufacture and sale of sewn products by Textron, Inc., represents a fully integrated operation inasmuch as the natural and synthetic fibers purchased by the subsidiary companies are woven into fabrics which are then finished and made into consumer goods. Our endeavor is finding practical expression in the manufacture of a wide variety of products. For women there are slips, blouses, pajamas, nightgowns, negligees, bedjackets, housecoats and hostess coats. For men there are pajamas, shorts and sport shirts. For the house there are such things as bedroom ensembles of spreads, curtains and vanity skirts; shower curtains and matching window curtains. And left-over materials are made into intriguing notions ranging from aprons to make-up capes.

That sounds a bit like a sales talk, doesn't it? But I didn't list our products for that purpose. I itemized them merely to indicate the diversity of articles which Textron produces by a common system, with an uncommon standard of excellence. Every item has the same positive quality control, from raw fiber to finished garment, the same production-line origin and a follow through that doesn't stop this side of consumer acceptance.

Here's how it works—the ideas which finally become Textron products are developed under the direction of six merchandise managers—one each for negligees, lingerie, blouses, men's wear, home furnishings and knitted fashions. Top-flight executives with broad experience in department store merchandising, they are given complete initiative in their fields. With their staffs and the approval of top management they decide on the type and variety of items, designing and styling, choice of fabric, finish, pattern and price.

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#### No Restrictions

From the first selection of the raw fiber, there are no mechanical limitations on their planning. Some manufacturers have set-ups which restrict them to one or two types of yarn. Others are confined to the use of natural fibers only. But with Textron, anything that can be done with yarn, we can do. We have the machinery for blending and combining all kinds of yarns into all kinds of weaves.

The ideas and specifications originated by Textron's merchandising managers are translated from designs to finished articles entirely by the Textron production line—a production line which is still expanding. Instead of the half dozen different steps being handled by a half dozen separate companies each with its own quality standard, or lack of it—Textron does the entire job.

At every step, quality control is under the general supervision of Textron's ultra-modern laboratory at Lowell, Mass. There, and in a companion lab devoted to pure research in the textile field, the exactitude of the scientist is teamed with the vision of the executive, (Continued on Page 75)

on Lubrication Problems

-SHOCK LOADS-

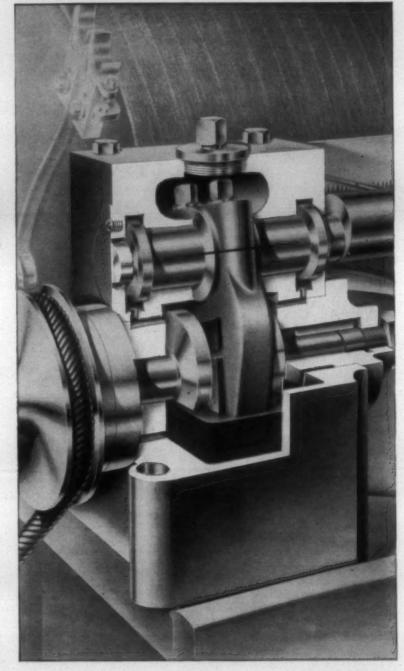
This is One of a Series of Messages on Common Problems in Your Plant

## One Shock after Another!

HUNDREDS OF TIMES a minute, the thin oil films on the rapidly oscillating mechanism of this comb box must take a battering like so many hammer blows. If the oil film breaks, metal-to-metal contact takes place. Friction, heat and wear are the results.

It takes an unusually tough oil to stand this kind of shock treatment. But here, as with every other lubricating problem in textile machinery, Socony-Vacuum provides the answer.

Gargoyle Vactra Oil has a remarkable attraction for metal. It forms persistent films that spread and cling tenaciously on all moving surfaces...resist rupture under continuous pounding. Equally important, it does not tend to thicken, nor to form



deposits that may clog small oil passages. Protective lubrication is maintained at all times.

Get this better oil in your comb boxes now!

SOCONY-VACUUM OIL CO., INC. and Affiliates: Magnolia Petroleum Co. General Petroleum Corporation



TUNE IN THE MOBILGAS PROGRAM - MONDAY EVENINGS, 9:30 E.S.T. - NBC

### Socony-Vacuum Correct Lubrication

FOR EVERY MACHINE ... EVERY OPERATING CONDITION

### **Electrification Of The Southern Textile Industry**

By S. A. BOBE, Westinghouse Electric Corp., Atlanta, Ga. - Address Before American Institute Of Electrical Engineers -

LTHOUGH the South has advanced industrially in leaps and bounds during the past few years, especially during World War II, cotton still is king and remains the major industry. It employs the greatest number of people in manufacturing, 437,000, with a product value of 11/4 billion dollars. It further accounts for a farm income of 11/2 billion dollars. There are a total of 1,248 cotton mills of which 75 per cent are in the South. Cotton accounts for 70 per cent of all textile fibers used, with rayon, wool and jute accounting for approximately 12, ten and eight per cent,

respectively.

To the electrical industry it represents a total of four million connected horsepower with an annual power consumption of nine billion kilowatt hours. It uses all electrical products from turbo-generators, motors and lighting to recent installations of radio frequency heating for yarn twist setting. These large quantities of power are comparatively recent. The industry, being one of the world's oldest, had carried development of mechanical drives to such a point of perfection that the economic necessity for change to electrical drives was not as great as in other industries. As a result, the major share of electrification of the cotton industry has taken place in the past 20 or 25 years and is still not yet completed.

Since large quantities of energy were required, early cotton mills, both in New England and the South, were located along streams or rivers. Dams were built and mechanical waterwheels installed driving by belts or ropes to mill line shafts. A common arrangement was to have one large grooved rope pulley, driven by the waterwheel, located in a rope-way at the end or center of the mill. Ropes were then run in this rope-way from the large pulley to a line shaft pulley at each floor level. All of the mill equipment

was then driven by belts from these line shafts.

With the development of large reciprocating steam engines, mills ceased being dependent on water power and began to move to locations having advantages of raw material and labor supply. This marked the beginning of largescale movement of the industry from New England to the South. The steam engines still used the same power distribution arrangement as the waterwheel, usually with one large engine driving a complete mill. These large, slowspeed steam engines were a very impressive sight with the engine room kept painted and clean and all brass oil cups and governor parts highly polished. Such engine drives are now practically extinct.

The first introduction of electrical energy in the cotton mill came as a means to secure safer and better lighting. Small generators were installed, driven from the mill line shaft or from small steam engines. The output of these generators was distributed through open-knife switch panelboards to drop cords throughout the mill. Some of these original installations, including the drop cords, still can be

found occasionally in small mills. With both generators and motors available, cotton mill operators now found it possible to better arrange mills for best equipment location without being limited by a common mechanical drive. This resulted in the waterwheels or steam engines being used to drive large generators which supplied electric energy to motors driving short sections of line shafts.

In most cases the early electrified mills were those that generated their own power. It was not until large power systems were organized that mills were able to purchase the large quantities of dependable power required at economical rates. These rates have been continually decreasing and dependability increasing until now most mills can purchase power cheaper than they can generate. Average mill power costs in the South vary from about one cent per kilowatt hour for the smaller mills to five mills per kilowatt hour for

the larger users.

The next step from a common line shaft drive was to provide individual motors on each separate piece of equipment or process. This was a quite logical result as demands were made for higher speeds and cleaner mills. Individual drives gave closer output control by eliminating unpredictable belt slip and permitted unlimited flexibility in arrangement. Machines were arranged for best mill arrangement without concern about drives. As a result, all new mills and practically all old mills, are now nearly completely individually driven. The trend to increase machine speed and output is, however, still continuing and resulting in an increasing kilowatt hour consumption and investment in machinery per employee.

In the early electrification of cotton mills the question of voltage was given serious consideration, and 550 volts adopted as standard for mill distribution. The major reason was saving in copper without increasing costs of motors or control over 440 volts cost. The standard is now 550 volts in approximately 95 per cent of the mills in the Southeast, including both cotton and rayon. Although recent efforts have been made to change this to 440 volts, the textile industry still considers 550 as standard and all new

construction continues at 550.

The kilowatt demand of cotton mills will vary from 1,000 for small units to approximately 15,000 for the largest groups. When power is purchased it is brought to the mill at high voltage and then transformed to the mill distribution voltage. The substations are usually power company owned. Past practice was to supply a single bank for the complete mill load. This resulted in many transformer banks of 5,000 and 7,500 k.v.a., or even larger, with resultant high currents and high short circuit capacities. Short circuit interrupting capacity was not always given sufficient consideration, and many present installations do not have adequate protection in this respect. The modern trend is to split up transformer banks into smaller units of 750 or 1,000 k.v.a. capacity and



WATER PANS

NARROWING MACHINE ARMS

NARROWING FINGERS

NEEDLE BAR.

TRANSFER BAR

TRANSFER WHEEL

Auto Heeler made by Robert Reiner, Inc., Weehawken,

## FOR THESE

High Speed—Lightweight Alcoa Aluminum in textile machinery parts means low inertia on reverse motions, fast stops and starts. Reduces vibration, a major cause for machinery going out of adjustment.

Low Maintenance — Because the high strength of Alcoa Aluminum can take the pounding of equipment running at high speeds, there is less fixing and replacing of parts, lower maintenance costs.

Long Life—Aluminum's high resistance to corrosion assures longer life and better appearance of textile machinery. Aluminum protects textiles against stains during manufacture, for condensate produces no rust to drop down and cause seconds.

REASONS:

When you're buying new equipment, ask your supplier, "Is it made of Alcoa Aluminum?" If he says, "Yes"... then it's the best buy. Aluminum Company of America, 1898 Gulf Building, Pittsburgh 19, Penna.

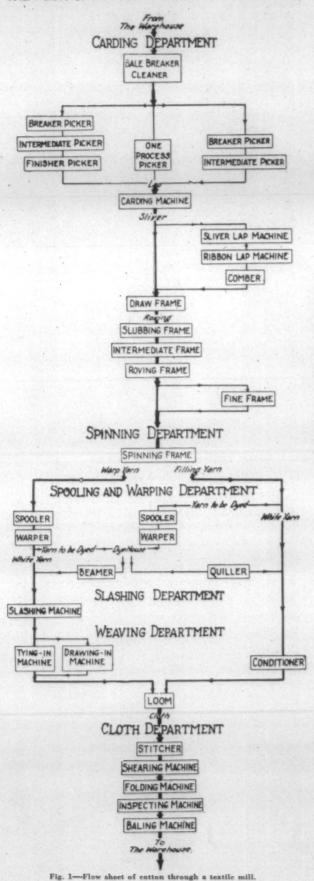
MORE people want MORE aluminum for MORE uses than ever

## ALCOA ALUMINUM



IN EVERY COMMERCIAL FORM

#### THE FLOW OF COTTON THROUGH A TEXTILE MILL



feed portions of the load independently with breakers available for emergency tie-in.

Busses from the transformer secondary usually carry the power to a switch room and main distribution board located in the mill. The board includes feeders to the various sections of the mill with indicating and totalizing meters. Past practice was to use manual oil circuit breakers with current limit protection. Modern boards use drawout type air breakers in cubicle construction with both instantaneous short circuit and thermal or inverse time limit feeder protection. Where modern use of small power transformers is made, present practice tends towards unit substation construction. This includes the transformer, distribution feeder breakers, meters, instruments and relays, all assembled as a factory-made unit. This has been carried a step further in some mills now under construction with the unit substation transformer being air cooled or non-inflammable liquid cooled, and the complete assembly located inside of the

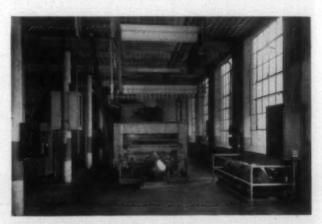


Fig. 2—Output end of variable voltage sectional motor drive of cloth finishing machine showing last motor and motor generator set with control.

Power distribution from the switchboard to individual motors is made in the usual manner by conduit feeders, with air breaker or fuse feeder protection. Bus duct has recently been installed in a number of mills in place of conventional conduit and cable. Line starting is now used exclusively for even the largest motors except on some applications such as roving frames where a soft start is required. In these special applications automatic step resistance type starters are now used. The average mill will have a connected horsepower of approximately two times the maximum kilowatt demand with the continuous load being nearly equal to the maximum demand. During the war, and at present, most mills operate 24 hours per day with two full shifts and one part shift. This third shift is used to balance out bottlenecks as very few mills have such a perfect balance of output in all divisions that no shortages

Mills having complete individual driven equipment usually have an over-all power factor of 75 to 80 per cent. Those with a large share of line shaft drives using higher horsepower motors will average 82 to 86 per cent. Some power companies in the Southeast have very attractive power factor rates, making the installation of capacitors to correct power factor a high-return investment. Most such applications pay for the capacitors in one to two years time. Other utilities provide an optional penalty which they may enforce

TEXT

#### MEET YOUR NEEDS FOR SUPERIOR SMOOTHNESS AND

SUPPLENESS with...

DECERESOL\* 1861 Softener...a durable, exceptionally compatible, odorless, surface active colloidal material... "engineered" to meet the demands of modern high speed textile processing. Excellent for yarns and fabrics; also for knitgoods where retention of elasticity is desired.

Be sure to send for Technical Bulletin giving general properties and full applications details.

AMONG CYANAMID PRODUCTS FOR THE TEXTILE INDUSTRY ARE . . . Penetrants, Softeners, Finishes, Sizing Compounds, DECERESOL\* Wetting Agents, PARAMUL\*\* 115 Water Repellent, and other Specialties and Heavy Chemicals

\*Reg. U. S. Pat. Off. \*\*Trade-mark



Industrial AMERICAN
Chemicals CYANAMID
Division COMPANY

30 ROCKEFELLER PLAZA . NEW YORK 20, N. Y.

and suppleness of hand in woolens, cottons, qualities retained after laundering

 REDUCED BLEEDING of direct colors...cracking of naphthol colors. Minimizes gas-fading of certain acetate colors.

3. HIGH COMPATABILITY
with gums, starches, solvents, acids and
dilute alkalies (less than 1% NaOH).

4. SATISFACTORY REACTIONS

with sulphonated oils and casein solutions, when used in proper ratios.

5. GOOD OISPERSION AND STABLE SUSPENSION...
eliminates need for additional wetting agents



Fig. 3-Cotton pickers showing cotton laps forming at output end.

if the maximum demand power factor drops below 85 per cent. Majority of capacitor installations are of the distributed type with small groups of capacitors being connected to feeders or at larger individual motors.

#### Cotton Processing

After cotton is picked, it is collected loose, in wagons, and taken to the local cotton gin. Here the seed is separated from the fibers by the ginning machine. This machine consists essentially of a series of saws so spaced that the seeds will just pass between the saws. As cotton is fed to the gin the seed is cut out, after which the fibers are carried by suction to the baler. The average bale of cotton weighs 500 pounds but requires 1,500 pounds of cotton bolls before ginning. The other 1,000 pounds is mostly seed with attached short fibers and some small amount of trash. A complete cotton gin, including blowers and conveyors, is usually operated by a 75 horsepower wound rotor motor.

This 500-pound bale of cotton is the standard unit used in records on size of crops, surplus and manufacturing. It may, be stored almost indefinitely without spoiling. The average crop in this country is ten or 12 million bales, of which eight to nine million bales are processed. In converting this 500-pound bale of cotton fiber to cloth there is 45 pounds of waste. It requires approximately 850 kilowatt hours of electrical energy and 100 man hours of labor.

Fig. 1 shows a typical flow sheet of a complete cotton mill. All mills do not have all of the operations shown.



Fig. 4—Individual motor driven cards using chain drive from motor to cylinder.

The more common divisions are yarn mills, cloth mills and finishing plants. The first group prepares yarn only, starting with baled cotton. This yarn is usually for specialized use such as electrical insulation, sewing thread, tire cord and knitting. This group uses 18 per cent of the total cotton processed. The second group, which includes the greatest percentage, starts with the raw cotton, follows through all the processes including weaving, but does not dye or print the cloth.

Finishing plants take the woven cloth and wash, bleach, dye, print, full and calender as necessary for the various types of cloth called for by the modern market. They usually are separate plants and finish cloth for groups of mills. Their processes involve the use of chemicals, dyes and large quantities of process steam. Power is sometimes generated as a byproduct of this steam but the trend is away from this combination with the decreasing cost of utility power. Electric drives in finishing plants are principally direct current because of the necessity of variable speeds for different weight goods and different finishes. Direct current adjustable voltage range drives including several sectional motors operating in tandem are common as most of the washing, bleaching and dyeing processes are now continuous. Such a range drive is shown in Fig. 2.



Fig. 5-Drawing frame driven by textile motor.

#### Mill Drives

As previously mentioned, almost all equipment in cotton mills is now driven by individual motors. The major exception has been carding, but even this is now beginning to be changed. Electrical equipment with standard enclosures is usually satisfactory except in the case of motors. Due to the great amount of free lint, standard open motors will quickly plug up and lose their ability to cool. As a result, most manufacturers make a special textile motor with large ventilating openings and smooth surfaces so that lint will easily pass through the motor without being caught. In the smaller sizes of two horsepower and below, totally enclosed non-ventilated assemblies are used. A recent development has been the use of prelubricated sealed ball bearings in textile motors. These bearings do not require any attention, including lubrication, for periods of five years or longer and result in a cleaner mill.

A breakdown of power consumption in an average mill shows the largest share, or about 50 per cent of the total, is used in spinning. The next largest is 20 per cent for weav-

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ing. The remaining 30 per cent is divided between opening, picking, carding, drawing, roving, warping, slashing and miscellaneous uses such as lighting, ventilation, pumps and elevators. To better show how horsepower is distributed in what might be called an average mill, the accompanying table lists the actual installed horsepower in one such mill.

DISTRIBUTION OF HORSEPOWER IN A TYPICAL COTTON

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				Percentage of Connected H.P.
DemandOpening and picking		k.w.	H.P	
Cards		91		18.7
Roving	40	93	69	1.5
Spinning		99	93	41.5
Slashers	30	11		1.1
Weaving (looms)		99		14.9 12.9
Total connected H.P.	2,687			100 %

Opening and picking involves taking the baled cotton, breaking it loose, fluffing, beating, cleaning and forming a thin layer about 40 inches wide which is called a lap and collected in a roll. This involves the use of three, five and 71/2 horsepower motors of 1,160 and 1,750 r.p.m. speeds. The motors are line-started and usually interlocked in sequence as the process includes air and belt conveyors which must be protected against overflow. A typical picking room is shown at Fig. 3.

Cotton cards are still usually driven from a lineshaft drive with 30 to 50 cards tied to a single lineshaft driven by a single motor. Average 40-inch or 45-inch cards require 11/4 horsepower for normal running. Two problems com-

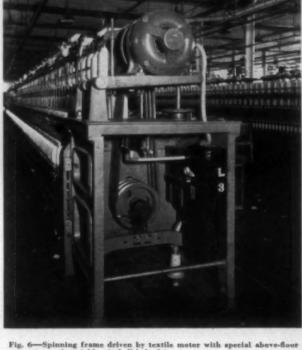


Fig. 6—Spinning frame driven by textile motor with special above-floor mounting and variable pitch V-belt drive.

plicate the use of individual card motors. The first is the requirement of a high breakaway and accelerating torque due to the large diameter and weight of the cylinder. The second is close overload protection and weight of the cylinder. The second is close overload protection which must be provided because of frequent card packing and quick over-

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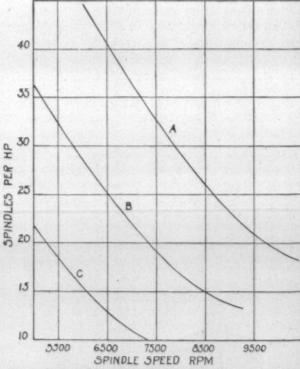


Fig. 7.—Curves used in estimating horsepower requirements of spinning frames: A, two-inch diameter ring; B, 2½-inch diameter ring; C, three-inch diameter ring;

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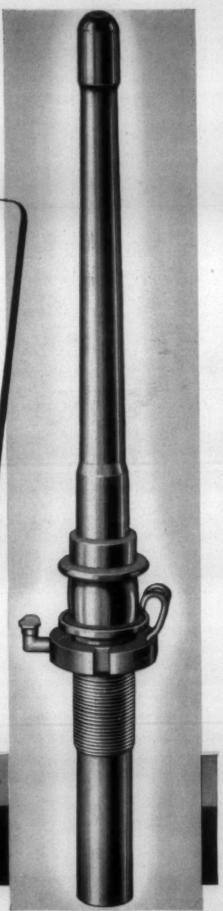
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load build-up. When using a 11/2 horsepower motor, which s ample for normal running, the starting torque must be at least 300 per cent of full load to provide for breakaway and acceleration. Overload relays used must permit the long accelerating period of approximately 30 to 45 seconds and still be sensitive to both quick or slow overload build-up. A standard thermal overload device must be supplemented by shunts or a thermostat on the motor itself. The average cotton card cylinder with its driven pulley operates at a speed of 165 r.p.m., and is driven by a 870 or 1,160 r.p.m. motor. The required power will vary as the square of the cylinder operating speed. Cotton mills will have from 50 to 500 cards, depending on the size of the mill and the quality of yarn being made. The output of the card is in the form of a fleecy strand of cotton about one inch in diameter and called a sliver. Control equipment is commonly a magnetic or manual linestarter with some reversing device as the card must be reversed for stripping or cleaning. A typical individually driven card is shown in Fig. 4.

After carding, the cotton may be combed to eliminate short fibers, as in the case of fine combed yarns, or go direct to drawing frames. At the drawing frames the fibers are



Fig. 8-Output end of variable voltage sectional driven slasher with core driven beam.

further aligned and straightened by means of a series of rolls, each of which run faster than the preceding one. With the rolls being spaced greater than the longest fiber length, this results in a further drawing and straightening of individual fibers. This operation uses only a small amount of power with floor mounted gearmotors or low-speed textile motors driving the frame shafts which operate at 250 r.p.m. Average requirement is six deliveries per horsepower. Moors are usually line-started. Fig. 5 shows a typical installation using a gearmotor.

The next operation involves roving, which combines the equired number of fibers for the weight yarn to be made, urther draws the yarn and slightly twists while winding on arge bobbins in preparation for spinning. Average roving rames require three and five horsepower textile motors ith speeds of either 870 or 1,160 r.p.m. It is necessary hat roving frames start slowly, since the yarn is yet very oft with no twist and low strength and may be easily roken. This soft starting is accomplished either by using closely applied motor with low starting torque and line-

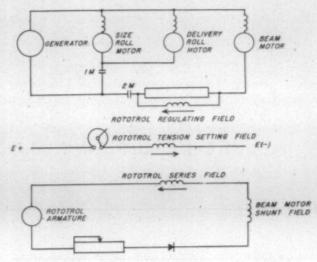


Fig. 9—Elementary diagram of sectional driven slasher showing arrangement of rotating regulator field circuits. Series and regulating fields are accumulative and tension field differential.

starting or a larger motor with primary resistance type starter.

Spinning is the operation wherein the greatest percentage of power in a cotton mill is consumed. The yarn is pulled by a set of rolls which further draw the fibers and feed to a spindle rotating at high speeds, in the order of 7,000 to 10,000 r.p.m., depending on yarn weight. A small traveler which rotates in a ring guide around the spindle acts as a guide for the yarn. Average spinning frames consist of 200 to 250 spindles. There may be difference in size of bobbins, spindle speeds and amount of twist obtained. Required horsepowers for individual motor drives range from 71/2 to 20 at 1,750 r.p.m. with some 1,160 r.p.m. Textile type motors must be used since the lint content in the air is quite high. Linestarting is standard with combination starters usually mounted on the end of the frame. Horsepower required varies about as the 1.5 power of spindle speed. Other factors effecting the horsepower are ring diameters, amount of drawing effect of feed rolls, and size of yarn

There are two general types of spinning called filling and warp. Filling spinning is for yarn used in the woof or cross threads in cloth. It is usually lighter and is usually spun onto bobbins used in loom shuttles. Warp yarns are usually heavier with more twist and (Continued on Page 73)



Fig. 10-A modern weave room with individual motor on each loom.

# Dyeing and Finishing

# Recent Developments In Continuous Bleaching

By THOMAS E. BELL, Manager of Textile Service
Peroxygen Products Division, E. I. du Pont de Nemours & Co., Inc.

- Address Before American Association of Textile Technologists —

A S the result of several years of research, pilot plant and large-scale development work, conducted in and with the co-operation of several leading bleacheries, the first commercially successful continuous peroxide bleaching system was put into production at the Renfrew Bleachery, Travelers Rest, S. C., early in 1940. This installation handled goods in the rope form. Several additional installations were built before the war closed in on us. Despite, or perhaps because of the war, the development of a system for handling cloth in the open-width was completed in 1943, at Dan River Mills, Inc., Danville, Va., and operated on Army fabrics for the duration. We take pride in this development, which contributed materially to the war effort.

Both of these processes are based upon the use of a storage chamber built in the shape of a large J, a device which permits continuous operation. Since these developmen's, other competing systems have been designed and built. One system, designed for open-width processing, uses a conveyor belt for cloth storage. A competing rope system uses J-boxes, as does Du Pont, with a different heating method. A third system, a combination rope and openwidth system, has been constructed, but as it has sacrificed the speed of the rope system without securing the special advantages of open-width systems, it does not appear too attractive commercially.

The commercial development of these processes has been accelerated since the end of the war, and there are now in operation 15 systems of the Du Pont type, producing about 14,000,000 yards of cloth each week. Since 1939, over 1,600,000,000 yards of cloth have been processed through the Du Pont system. It is estimated that by the end of 1947 the weekly production of cloth in Du Pont systems will exceed 30,000,000 yards, and that the production in systems other than Du Pont will approximate 10,000,000 yards, a total of 40,000,000 yards per week. As the total production in 1940, the first full year of operation for any continuous peroxide process, was under 2,000,000 yards, real progress has been made. Textile equipment manufacturers have already delivered over \$1,000,000 worth of new equipment for this process, and have on their books orders for equipment to be delivered in 1947 and 1948 in excess of \$2,000,000 additional.

#### **Basic Operations**

Although many refinements in both equipment and processing technique have been made, the basic principle which

has been the heart of this development from its very inception, remains unchanged.

In the basic research and development work which preceded larger scale development, our textile bleaching specialists applied a method of approach which is more commonly used by industrial engineers in job evaluation experiments. Each fundamental operation was reduced to its simplest terms, and then equipment was designed and built, so that each individual operation could be carried out under controlled conditions, independent of any other operation in the cycle. These fundamental operations, which are common to all continuous peroxide bleach systems, and which should be carried out separately, and in the following order, are: (1) saturating the fabric with a chemical solution; (2) heating the saturated fabric to the optimum temperature; (3) storing the saturated and heated fabric for a sufficient time to react with the chemicals; and (4) washing to remove by-products of the reaction and unreacted chem-

In most of the large piece goods operations, this sequence of operations is repeated, the first stage being a treatment with caustic soda to prepare the fabric for bleaching, the second stage being the bleaching operation, in which an alkaline peroxide solution is used. The unit operations which we have found essential to the successful operation of any continuous peroxide bleaching process, and the order of application which we consider important, are next to be reviewed.

#### Saturation

In order to secure uniformly and adequately prepared fabric for the subsequent bleaching operation, it is necessary to saturate the fabric uniformly with a chemical solution, and then remove the excess solution uniformly from the fabric.

For this purpose equipment and operating techniques, suitable for both rope and open-width processes, have been developed. This equipment consists basically of a stainless steel tank, preceded and followed by adjustable rubber-covered squeeze rolls. The cloth enters the first set of squeeze rolls from the primary washers, where the water content is reduced to 80 per cent (plus or minus five per cent). The cloth next enters the chemical solution (caustic soda or alkaline peroxide) which is fed continuously to the saturator from a stock solution. This stock solution is approximately five times the concentration of the saturator



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solution. After a short interval, long enough to effect a complete interchange of liquor, the cloth is passed through a second set of squeeze rolls, which removes excess solution, reducing the liquid content to 100 per cent (plus or minus five per cent).

#### Heating

In all chemical processes the rate of reaction and also the ultimate results are greatly influenced by the temperature. The rate of decomposition of alkaline peroxide solutions is also increased by temperature, and it is, therefore, undesirable to heat the bleach solution in the saturator. All successful continuous peroxide bleaching processes depend upon rapidly heating the chemically saturated cloth to the optimum temperature. This keeps the storage period at a minimum and decreases the size and consequently the cost of the storage equipment.

In the Du Pont system, which uses J-boxes for storage of the saturated and heated cloth, the heating operation is performed before the cloth is piled into the J-box for storage. This is a unit operation accomplished by passing the cloth rapidly through a stainless steel tube built in the shape of a large U. Steam at atmospheric pressure is admitted to the exit end of this tube, through a specially designed steam distributor, and is controlled automatically by a temperature control instrument located at the entrance end of the heater tube. The cloth is carried through the U-shaped tube on reels, surrounded by a steam atmosphere,

PICK Cotton
Cotton

Cotton

Cotton

MEEK
MAY 19 TO 24

The period May 19-24 has been selected this year for the nation-wide observance of National Cotton Week, according to an announcement by the Cotton-Textile Institute and the National Cotton Council, co-aponaors of the merchandising event. The slogan will be 'Pick Cotton' and will emphasize the return to store shelves of dependable supplies of quality cottons which were acaree during the last five years. Posters, such as the one reproduced above, as well as literature pointing out the merits of new cotton merchandise, will be seat to the many stores which participate regularly in the event.

and is rapidly and uniformly raised to the operating temperature. Variation in steam demand caused by speed changes or changes in the weight of cloth are automa ically compensated for by the steam control system without attention by the operators.

The result is a uniformly heated fabric, heated to a temperature which experience has shown to be most effective. This is most important if uniformly processed cloth is to be produced and is the very heart of the process.

#### Storing

The J-boxes used in the Du Pont system are stainless steel storage chambers built in the shape of a large J and provided with a mechanical piling device which plaits the cloth into the J in a pattern which prevents tangling and permits removal of the cloth at high speed. These storage devices are built in several sizes, to provide sufficient capacity for one hour's storage at the selected speed. A common size has cross-sectional dimensions of 30 by 60 inches and is about 23 feet high. This J-box has a capacity of 4,000 pounds and is used in systems producing upwards of 1,000,000 yards per week.

#### Washing

The last step in this four-operation cycle is washing. This important part of the process is necessary for the removal of reaction by-products and residual unreacted chemicals from the cloth being processed. Although frequently neglected, too much emphasis cannot be placed upon this subject. It is absolutely esential that the cloth be properly washed, especially in the intermediate washers in the two-stage system, which uses first a caustic soda treatment, followed by the peroxide bleach. Unless washing after the caustic treatment is thorough, bleaching costs will be increased and the quality of the work will suffer. The major factor limiting the speed of any continuous bleach system is the capacity of the intermediate washers.

#### A Typical System

Now that the four basic steps common to all continuous bleach processes have been reviewed, we pass to a description of a typical system. For this we have selected a standard Du Pont rope system of the high-production type. A majority of all systems now operating or being installed are of this general type. A system such as this requires the following basic equipment: preliminary washer; caustic saturator; caustic J-box; two intermediate washers; peroxide saturator; peroxide J-box; and final washer. In addition to this equipment, there will be required auxiliary equipment such as a variable speed drive, control instruments, mixing tanks, etc.

The sequence of operations when handling fabrics to be dyed after bleaching or to be finished white is as follows. With formula modifications, colored yarn fabrics can also be processed in the same high-speed system.

- 1. The cloth, which has previously been singed and desized or gray soured is washed in the first washer.
- 2. The cloth leaving the first washer is squeezed to remove excess moisture to a water content of 80 per cent (plus or minus five per cent).
- 3. The cloth is passed into the rope saturator, which contains a caustic soda solution. The strength of this solu-

CARD COILER GEARS

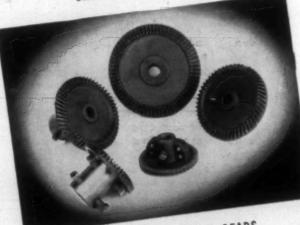
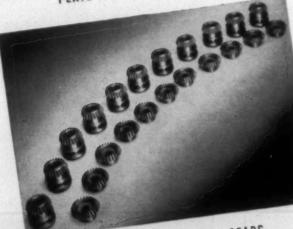


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tion is adjusted so that the cloth leaving the saturator, after squeezing to 100 per cent moisture (plus or minus five per cent), will contain three per cent of dry caustic soda based on the dry weight of the cloth.

4. The chemically saturated cloth next passes through the heater tube, where the temperature is raised to just under

212° F. (about 210° plus or minus 1°).

5. The saturated, heated cloth next enters the J-box proper, where a mechanical piling device plaits it down in the box, in a pattern designed to prevent tangling and facilitate removal at high speed. The heated cloth remains in the J-box for one hour (plus or minus ten per cent).

6. The scoured cloth is pulled out through two intermediate washers in which the residual caustic soda is reduced to below 0.2 per cent. It is now ready for bleaching.

- Before entering the peroxide saturator it is necessary to again reduce the moisture content to 80 per cent (plus or minus five per cent) by passage through rubber squeeze rolls.
- 8. The cloth enters the peroxide saturator, which contains an alkaline peroxide solution of approximately pH 10.6, with a peroxide concentration of about three-quarter volume. As the excess liquor is squeezed out, leaving the cloth with 100 per cent moisture, the cloth will contain somewhat less than 0.6 per cent of 35 per cent hydrogen peroxide, based on the dry weight of the goods.

9. The peroxide saturated cloth now passes through a second heater tube, where the temperature is again raised to 210° F. (plus or minus 1° F.), except for colored yarn fabrics, which are bleached at lower temperatures.

10. The cloth is next stored in the J-box for one hour, during which time bleaching is completed. A small amount

of residual hydrogen peroxide remains, along with the byproducts of the bleaching reaction and some unreacted alkali.

11. The cloth now receives a final wash. Only one washer is required, as the cloth is relatively free from impurities.

12. The cloth is piled in bins, from which it is withdrawn as needed for dyeing, printing or finishing.

A typical range such as has been described will produce, in 120 hours, 1,500,000 yards of bleached fabric in the three-six yards per pound range. Operating speeds are generally about 200 yards per minute. The chemical cost of processing this range of fabrics will approximate \$1.60 to \$2 per thousand pounds. Steam consumption is about 600 pounds per 1,000 pounds of cloth produced, and averages about 1,800 pounds per hour. Three men are usually required to operate a range efficiently, although some mills use only two. Power required will approximate 100 horse-power when operating at 200 yards per minute on four-yard fabrics. A wide range of fabrics can be handled, including sheetings, print cloths, broadcloths, twills, colored yarn shirtings and dress goods, marquisettes, towelings, both huck and terry, etc.

In conclusion, we would like to acknowledge the contributions to the development of this process which have been made by the textile bleaching industry. The going has been hard in spots but this fine help and co-operation have meant the difference between success and failure. That improvement and refinements in the process will evolve, it goes without saying. However, we can say with assurance that the major obstacles are behind us and a practical, economical and workable process is here, and here to stay.

# The Williams Unit In Textile Processing

By S. H. Williams, General Dyestuff Corp.

- Abstract of Paper Read to New York Section, American Association of Textile Chemists and Colorists -

THE Williams Unit was developed after 1929 to provide a better machine to dye a wider range of well-penetrated vat colors on cotton by a continuous process. At that time a few deep shades were obtainable with a few selected dyes by pigment padding followed by reduction with caustic and hydrosulfite at a relatively high temperature in a first booster box and then passage at a lower temperature through one or more successive booster boxes at a lower temperature to promote penetration.

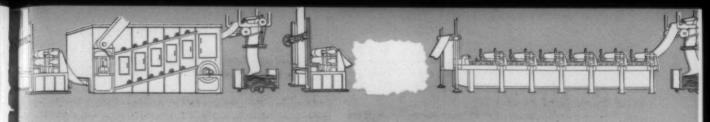
That original, moderately successful, process possessed limitations which the Williams Unit has overcome. The large volumes of liquor required in the booster boxes made it difficult to obtain equilibrium promptly between pigment on the entering fabric and reduced dye in the booster boxes, that is, to control a proper balance between bleedoff and exhaustion of dyestuff. Furthermore, the amounts of chemicals and dyes involved to charge such large volumes ini-

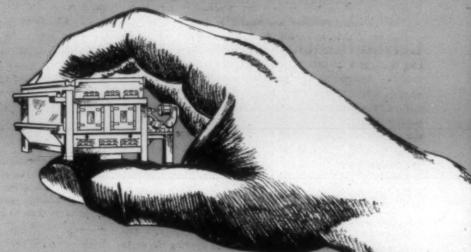
tially were wasteful.

The Williams machine as finally perfected provides for passage of pigment-padded cloth in full width between rollers beneath the surface of the reducing dye-bath at the top and bottom of the bath through very narrow channels containing the dye liquor. The space between the channels

is taken up with other separated narrow channels between metal walls through which steam, hot water or cold water is circulated to give quick and uniform control of the temperature of the dye-bath. The shortness of the liquor required by the arrangement in the Williams machine for the long immersion of fabric permits the rapid attainment of equilibrium between dye on the fabric and in the bath with the involvement of relatively small quantities of chemicals. Thus the automatic control of temperature, dye level and chemical feed built into the stainless steel Williams machine has led to production rates of high quality vat dyeings which are appropriate for the tempo of modern quantity production methods.

The Williams machine can also be used for the application of other classes of dyes on various materials, as for example sulfurs, napthols and directs on cotton, on rayon and on mixed fabrics. The dyeing of Algosols and vats on wool and wool mixtures is particularly interesting. By slight variation of roll width, textiles in other forms such as narrow fabrics and chain warps can likewise be dyed in the Williams unit. Outside the realm of color application, Williams machines are also finding new fields of usefulness in textile processing.





# Your Profit may depend on where you place this machine

Take a look at your wet finishing equipment—do you have all the machines you need and are they in the correct position to meet today's production demands?

In many mills production is slow, costs are high because of wasted labor resulting from out-of-date production lines. Butterworth engineers have spent years studying this problem of the Textile Industry. As a result, improvements have been made in production facilities, machines have been designed and redesigned to minimize or eliminate production shortcomings.

Butterworth makes all the machines required for fast, modern production — in

bleaching, boiling-out, drying, calendering, or dyeing. Whether your mill requires a single machine or a complete range, you can depend on the unique Butterworth experience of 127 years of designing and building equipment for the wet end of Textile Finishing.

Butterworth engineers are ready to help you place new machines or rearrange your present ones to increase production, eliminate wasted labor, and make the most effective use of available floor space. Write us today.

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# textile bulletin

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#### Right-to-Work Laws

Many years ago an industrialist, in a fit of anger, said "The public be damned."

That statement has been repeated many thousands of times in editorials and in addresses and has done great injury to all industries and businesses.

Those four words, although they were the statement of only one man, played a great part in turning public sentiment against industry and business because they seemed to indicate that industry and business considered themselves so powerful that they did not need to have any regard for the rights of employees or the public.

Instead of paying heed to the unfortunate position into which a careless expression of power had placed industry and business, organized labor, with the support and encouragement of a New Deal government, reached the point that it felt all-powerful and in effect declared "Industry and the public be damned."

When union leaders were permitted by the government to dictate who should or should not work upon the construction of war camps and in the manufacture of war materials and were permitted to say to a farmer that he could not work for his government unless, and until, he paid a fee of \$75 to \$100 to a union organizer and agreed to pay \$1 per week dues, they came to really believe that they were all-powerful and that they could do whatever they wished.

John L. Lewis became so drunk with power that he thought he had the right to cut off the supply of coal from the people of this country unless his every demand was met.

The attitude of organized labor was never more plainly shown than in the letters and telephone calls which went to members of the North Carolina Legislature when it was considering the "Right-to-Work" bill. Many of the letters from labor leaders were recklessly discourteous and insulting and instead of asking serious consideration of their claims the union leaders "demanded" votes against the measure and at hearings before legislative committees, they jeered and hooted witnesses who favored the measure which would permit a citizen to work without paying tribute to them.

One prominent Senator who had not made up his mind about the measure promptly decided to vote for it, when called a of a , over the telephone, by a labor leader when he said that he had not made his decision.

There may have been a day when some industry leaders were contemptuous of the public and public opinion but we do not believe that they were ever as drunk with power as the labor leaders and the labor organizers of the present day.

The public, however, has so recently seen so much of organized labor's arrogance and unfairness, including that of John L. Lewis, that it has welcomed the introduction of "Right-to-Work" or "Anti-Closed Shop" bills and has almost 100 per cent advocated their enactment.

Already this year, legislatures in the states of Virginia, North Carolina, Georgia, New Mexico, North Dakota, Tennessee and Texas has approved such bills. Previously, Arizona, South Dakota, Nebraska, Arkansas and Florida had written anti-closed shop provisions in their laws. Now pending are bills of similar type in Connecticut, Iowa, Kansas, Maine, Minnesota, Oregon and South Carolina.

Virginia enacted a law to postpone a strike or lockout in a public utility for at least five weeks after negotiations end to give the state time to take over and operate the facilities.

Georgia legislators voted to bar the involuntary check-off of union dues and picketing by more than two persons.

The North Dakota legislature decided to outlaw sympathy strikes and to require unions to file financial reports.

South Dakota's solons put their approval on statutes permitting unions to sue or be sued for damages, and making mass picketing illegal.

Utah amended the state's "little Wagner act" to make employees as well as employers subject to prosecution for "unfair labor practices."

Indiana lawmakers approved legislation outlawing strikes and lockouts in disputes affecting public utilities, and is setting up machinery for compulsory arbitration.

New York's legislature adopted a bill banning strikes by employees of the state and its political sub-divisions, and providing that any who strike should lose their jobs.

The South Carolina legislature started out to enact an anti-closed shop law but, through a tricky amendment, the bill left the House in such form that it actually legalizes the closed shop.

With strong "Right-to-Work" or "Anti-Closed Shop" laws in the surrounding states of North Carolina, Georgia and Tennessee, South Carolina will fare badly in securing new industries if it fails to protect the right of citizens to work without paying tribute to a union.

No one knows at this time what labor laws Congress will enact but the rapidity with which anti-closed shop laws are being enacted by the states may ultimately have an influence upon Congressional action.

#### Three Lynchings and One Murder

The following incidents occurred within a period of two weeks:

(1) Peoria, Ill.—George M. McNear, Jr., president of a small railroad, the employees of which had been upon a prolonged strike, had refused to agree to the demands made by union leaders.

As McNear was walking near his home he was killed by a shot-

gun blast from a speeding automobile.

(2) Chicago, Ill.—James Crowley, president of the Chicago Bartenders Union, an organization which had been dropped by the A. F. of L. but continued to operate in defiance of the union, was seriously wounded and his wife killed by five shotgun volleys which were poured through the front window of the car they were driving. Mrs. Crowley happened to be in the driver's seat.

(3) Greenville, S. C.-A Negro hired a taxicab to drive him to Easley, S. C. The taxicab driver was later found with his throat cut, his tongue cut out, a large piece cut out of his leg and with evidence that the cutting had been deliberately brutal. He was carried to a hospital but died.

(4) Pickens, S. C.-Incensed by the brutality of the cutting and that in the previous few weeks a number of taxicab drivers had been held up by Negroes and several of them murdered, taxicab drivers of Greenville, S. C., took the Negro from the local jail and he was found shot to death.

The taxicab drivers should have left the punishment of the Negro to the courts and we do not, in the least, condone their actions but do make the following analysis:

(1) Peoria, III.—A man was shot to death by a blast from a speeding automobile because he refused to yield to union demands.

(2) Chicago, Ill.—A president of an outlaw union which refused to obey the orders of the A. F. of L. was seriously wounded and his wife killed by shotgun blasts poured through the window of his automobile.

(3) Greenville, S. C.-A Negro cut to death, with unnecessary brutality, a taxicab driver who demanded his fare.

(4) Pickens, S. C.—Taxicab drivers shot to death the Negro mentioned above.

We again classify the crimes:

(1) Man killed for refusing to obey union.

(2) Man wounded and wife killed for conducting rival union.

(3) Man killed because he demanded pay for services rendered.

(4) Man killed because he had brutally murdered an associate of those who did the killing and because numerous similar incidents made them fear for their lives.

The motives behind each killing may be listed:

(1) For financial gain.

(2) For financial gain.

(3) To avoid paying a fare.

(4) To avenge the brutal killing of an associate.

Killing to avenge the death of an associate who had been brutally murdered is not to be excused or condoned but killing a man for refusing to yield to a union demand or for operating a rival union is far worse.

Our dictionary defines lynching as "summary punishment by private individuals without the usual legal formalities."

Incident No. 3 can only be classed as a cold-blooded

Incidents Nos. 1, 2 and 4 were lynchings, the only distinction being that No. 1 and No. 2 were for financial gain while No. 4 was for revenge.

To our way of thinking it is far worse to "lynch" or kill for financial gain than to "lynch" or kill for revenge.

Walter Winchell and Drew Pearson and many Northern newspapers and such Southern newspapers as the Raleigh



News & Observer and the Charlotte News, where the editors or associate editors have a "pink" or "reddish" cast, have railed and ranted about the killing of a Negro at Pickens, S. C., by taxicab driver associates of the man he had brutally cut to death, but we have yet to hear one radio statement or see one editorial word in condemnation of the cowardly shooting of men whose sole offense was that they refused to do certain things demanded by them by labor union racketeers.

We realize that such incidents are commonplace in those Northern areas infested by gangsters and labor union racketeers but they are no less "lynchings" than the killing of a Negro for a brutal crime.

The taxicab drivers should have left to the courts the punishment of the Negro who murdered their associate and they should be punished for taking the law into their own

Many Northern editors, and certain Southern editors and associate editors of "reddish" cast seize upon every unfortunate incident which happens in the South, more for the purpose of striking a blow at the South than for any abhorence of the crime committed.

At the same time such editors seem absolutely complacent about "lynchings" and murders for financial gain which occur almost daily and almost under their editorial windows.

Shooting a man at Peoria, Ill., in order to break a strike impasse, shooting a man at Chicago and killing his wife in order to destroy a rival union, aroused little or no editorial criticism but when taxicab drivers south of the Mason and Dixon Line shot to death a Negro who brutally murdered an associate, it affords an opportunity to throw rocks at the South and editors pour forth columns of vitriolic editorials.

#### CONSTRUCTION. NEW EQUIPMENT. FIR ACTIVITY. SALES AND PURCHASES

MIDDLEWAY, VA.-Virginia Woolen Co. has begun construction of a plant here for the purpose of combining the finishing of cloth for the company and its affiliate, Berkeley Woolen Co. of Martinsburg, W. Va. Cost of the new building and equipment is estimated at more than \$1,000,-

SHELBY, N. C.—All property of the Harrison-Walker Mill, formerly the Buffalo Mill, has been sold to D. A. Beam Co. and W. C. Sarratt, both of Shelby. John P. Harrison, who operated the mill until recently, said the sale covered all property with the exception of machinery, which was sold to Troy Whitehead Machinery Co. of Charlotte.

DUBLIN, VA.—Part of the New River Ordnance Plant here where ammunition bags were manufactured during the war, has been sold to Mohawk Carpet Mills, Inc., of New York, for conversion into a woolen yarn mill. The War Assets Administration announced the purchase price as being \$608,601.

WAXHAW, N. C.-Waxhaw Spinning Co., Inc., which operates about 6,256 spindles in the production of 30s twoply carded yarns, has been leased by D. R. LaFar, Jr., and associates of Gastonia, N. C. Formerly known as Waxhaw

Cotton Mills Co., the plant was purchased last June by a corporation headed by Robert R. Spilman of Statesville, N. C., at a cost of \$312,000, or about \$50 per spindle.

MERIDIAN, MISS.—Shipment of machinery of the Amer-Ind, Inc., mill to Brazil is underway with all cotton production at the plant halted. The mill was sold to Amer-Ind by Robert D. Sanders, former operator.

ANDERSON, S. C.-Construction of a two-story brick addition to the Ottaray Textiles, Inc., plant, which will make room for 48 additional looms, is underway. This project is the second launched in the company's expansion program during the past year. The new addition will extend approximately 35 feet from the present main building.

GREER, S. C .- Operations are expected to begin about April 1 at Fine Wear Mfg. Co., Inc., located five miles from Greer. The new concern will operate in the former plant of the old Batesville Mill. Officers are W. Clarence Clinkscales of Belton, president and treasurer; Albert Goldsmith of Greenville, vice-president, and H. S. Cox of Belton, secretary. The mill has 10,000 square feet of floor space and room for 3,584 spindles.

GREENSBORO, N. C .- A building permit for \$100,000 has been issued to Burlington Mills Corp. for erection of an addition to the firm's finishing plant at 1421 South Elm Street here.

ROCKY MOUNT, N. C .- Approval has been granted an application of the Sidney Blumenthal & Co., Inc., plant for permission to build a new cloth storage building. The new building will be an addition to the dyeing and finishing plant, will cover approximately 15,000 square feet and will cost about \$41,000.

SYLACAUGA, ALA.-Avondale Mills was honored recently by the National Safety Council with presentation of the council's award of honor for "distinguished service to safety," which permits the mill the privilege of flying the "S" flag of universal safety on the flag pole. Ray Ketchmark, staff representative of the National Safety Council, presented the award to W. A. Turner, vice-president and general superintendent, who accepted it on behalf of all Avondale employees.

NEWTON, N. C.-Consolidation of Carolina Mills of Maiden, N. C., and Newton, Abernathy Mfg. Co., Inc., of Laurinburg, N. C., New City Mills Co. of Newton and Knit Fabrics, Inc., of Hickory, N. C., was agreed upon by stockholders of the four concerns at a meeting in Newton. The authorized capital stock of the merged firms is between \$2,000,000 and \$2,500,000. J. W. Abernathy of Newton is president of the four concerns whose consolidation climaxed an expansion program. It is planned that Abernathy Yarn Mills will be moved to Newton, as will the part of Knit-Fabrics now in Hickory, and will be housed in buildings now being constructed in the vicinity of New



Outstanding safety work was recognized recently at Enka, N. C., when American Enka Corp. was presented with the National Safety Council's Distinguished Service to Safety Award and a joint U. S. Government-State of North Carolina award for a 40 per cent improvement in 1946 over the previous year. In the photograph above, left to right, are E. M. Salley, plant superintendent; Forest Shuford, North Carolina Commissioner of Labor; J. D. Brown, Enka safety director; L. A. Moritz, assistant to the vice-president, who accepted the awards; Ray Ketchmark of Chicago, Ill., who represented the National Safety Council; Paul Kreik, chief plant engineer; James Merrimon, director of personnel; and Robert Justice, director of industrial relations. Enka also is eligible for an award from Liberty Mutual Insurance Co. for continuous operation without lost-time accidents.

Shown below is a drawing of the new American Enka plant, a project costing \$20,000,000, now under construction near Morristown, Tenn.





Why continue to let thirsty bearings eat into your profits? Independent experts agree that three drops of fluid lubricating oil out of every four fed to bearings drip away unused.

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The heavier grades of NON-FLUID OIL, specifically designed to replace greases, do not require the aid of frictional heat to feed, but lubricate instantly and positively. Bearings lubricated with NON-FLUID OIL run noticeably cooler than when ordinary grease is used, thus indicating that NON-FLUID OIL reduces friction to a minimum, with a resultant reduction in power consumption and minimum wear on bearings.

Southern District Manager FALLS L. THOMASON Charlotte, N. C.

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Lint and fly do not get a chance to be spun into the yarn. They are shooed away.

Hand cleaning, done as often or as regularly, might be better. But what spinner would want to fan a frame (not to mention five or six) fifteen or twenty times an hour? Or who would want her to?

ParksTurbo Traveling Cleaners take the drudgery out of spinners' work—and earn their keep besides.



Promotions, Resignations, Elections,
Promotions, Resignations, Elections,
Honors,
Appointments, Honors,
Transfers, Appointments,
Transfers, Men in Uniform,
Notes on Men in Uniform,
Notes on Associational Activity
and Associational

### PERSONAL NEWS

- J. H. Daughdrill, general manager of the Southern division of American Thread Co., with headquarters at Clover, S. C., has been elected vice-president of American Thread. He will continue as Southern division general manager. He formerly was associated with Callaway Mills.
- W. J. Pennington is now overseer of weaving at Salisbury (N. C.) Cotton Mills. He formerly was associated with the White Oak Plant of Proximity Mfg. Co. in Greensboro, N. C.
- R. E. Hightower, Jr., has been elected president and treasurer of Thomaston (Ga.) Cotton Mills to succeed his brother, the late Harrison Hightower. Other new officers elected include Julian T. Hightower, executive vice-president; W. H. Hightower, Jr., vice-president and assistant treasurer; George H. Hightower, vice-president; and P. T. Mitcham, secretary.

Henry E. Miller, former division superintendent of the Riverside Division of Dan River Mills, Danville, Va., has joined Profile Cotton Mills, Jacksonville, Ala., manufacturer of diversified sales yarn.

W. J. Erwin, president of Republic Cotton Mills, Great Falls, S. C., and C. J. Garrett and A. J. Sokel, both of New York, have been elected vice-presidents of J. P. Stevens & Co., Inc.



M. Hope Cranford, left, formerly associated with Springs Cotton Mills at Chester, S. C., has joined Sterling Ring Traveler Co. as representative in South Carolina and western North Carolina, the territory formerly covered by

John R. Federline. Mr. Cranford is a graduate of Clemson College and served in the Army during World War II.

Robert Amory, manager of the Boston office of Crescent Corp., has been named president of Anchor Rome Mills, Rome, Ga., succeeding the late Charles A. Sweet. Mr. Amory also will continue his duties with Crescent Corp.

Henry B. Miller has been promoted to manager of the Lynchburg (Va.) Division of Consolidated Textile Co., Inc.

William J. McGeough, executive vicepresident, general manager and assistant treasurer of U S Bobbin & Shuttle Co., Providence, R. I., has been elected president of the firm, succeeding Clarence R. Howe, retired. Ira C. Lynch was elected vice-president and Francis E. Lynch was re-elected chairman of the board. Wesley C. Carlson was renamed secretary and clerk of the board. New directors are Edward O. Callahagan and William P. Skinner, Jr.

F. J. Haywood, executive vice-president of the Cabarrus Bank & Trust Co., Concord, N. C., has been elected president of Travora Mfg. Co. at Graham, N. C., succeeding the late Harvey White.

Edward S. Alden has been elected treasurer of Whitin Machine Works, Whitinsville, Mass., succeeding E. Kent Swift, who has been re-elected chairman of the board. Phillips Ketchum was elected a director to replace Nathaniel F. Ayers, and Harry Moss was elected a vice-president.



Edward F. Skinner, left, has been appointed Southern representative for Meinhard, Greeff & Co., Inc., New York City factors. Mr. Skinner's headquarters will be in Charlotte, N. C. A native of Greenville, S. C., he is a graduate

of the University of Chicago and was formerly engaged in commercial and investment banking. He served as a lieutenant commander in naval intelligence during the war.

William H. Beattie has been elected president of Woodside Cotton Mills Co., Greenville, S. C., and of Easley, (S. C.) Cotton Mills, succeeding his brother, S. M. Beattie, resigned. W. J. Iselin, heretofore vice-president of both firms, was elected vice-president and treasurer, and Bennett Rose, heretofore with Victor-Monaghan Co., was elected a vice-president.

Norman J. Waugh, identified with Dan River Mills, Danville, Va., since 1919, has been appointed secretary, succeeding Wallace W. Ayres, retired. Elected a member of the Dan River Mills directorate is Harry L. Bailey of New York City, succeeding Julian C. Jordan, resigned.

David L. Howard, general manager of Brookford (N. C.) Mills, has resigned his position after more than 40 years of service with A. D. Juilliard Co., owner and operator of the concern.

J. Arthur Whitehead, who for the past two years has been assistant to the personnel manager of Fieldcrest Mills, Spray, N. C., has accepted a position as personnel supervisor for Standard-Coosa-Thatcher Co., Piedmont, Ala. Oliver D. Landis of Charlotte, well known manufacturers' agent, and an alumnus of N. C. State College, Raleigh, has notified State's football coach that he is now assured of a star halfback for the 1964 team, with the arrival of Oliver Dockery Landis, Jr., March 3.



John C. Cook, left, vice-president of W. R. C. Smith Publishing Co., Atlanta, Ga., and business manager of Textile Industries, has resigned from those positions to establish representation for American textile machinery and sup-

plies in Sao Paulo, Brazil.

- A. E. Thompson has resigned as overseer of carding at Riverdale Mills, Enoree, S. C., and has accepted the position of superintendent of Oconee Textile Co., Whitehall, Ga.
- B. P. Albright of LaGrange, Ga., has been elected vice-president in charge of manufacturing of American Yarn & Processing Co., Mount Holly, N. C. He was formerly supervisor of both the Unity Spinning and Oakleaf Plants of Callaway Mills, Inc., LaGrange
- O. J. Theobald, Jr., has been promoted to the position of district sales manager for the Charlotte, N. C., area by Mathieson Alkali Works. Mr. Theobald will supervise company sales activities in Virginia, the Carolinas, and parts of Tennessee and West Virginia.

William Klopman, wha has been on leave of absence from his active duties with Burlington Mills Corp., Greensboro, N. C., has resigned as president of Burlington Mills Corp. of New York and as vice-president of Burlington Mills Corp. but will continue to serve in an advisory capacity to Burlington Mills Corp. and its affiliates and continues as a member of its board of directors.

Walter H. McGaha, formerly with Springs Cotton Mills, Lancaster, S. C., is now superintendent of Blackinton Mills, Inc., Conestee (S. C.) Division.

Robert H. Nuttall, formerly director of application laboratories at the Lock Haven Plant of American Aniline Products, Inc., has been advanced to the post of technical director of the company's Southern operations. In his new post Mr. Nuttall will coordinate and direct all phases of both lab-

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oratory work and demonstrations for the Charlotte, N. C., and Chattanooga, Tenn., branches.

F. B. McDonald has been elected president of the Gastonia (N. C.) Roller Flyer & Spindle Co. to succeed C. E. Honeycutt, resigned. Mr. Honeycutt, however, will serve as chairman of the board of directors. Other officers elected include Wilson Williams, vice-president, and Mrs. Ollie Handsel, secretary-treasurer. Joe Whitehurst will be plant superintendent.



Roland Z. Farkas, left, a graduate of Polytechnicum, Budapest, Hungary, and of Lowell Textile Institute, Boston, has joined Texize Chemicals, Inc., Greenville, S. C., as technical director. He formerly was associated with Mortan

ciated with Morton Chemical Co., Greensboro, N. C. In his new capacity he will direct Texize's research and development in war sizing materials, resin emulsions and synthetics.

Milton Herman of Danville, Va., has been elected president and treasurer of Statesville (N. C.) Cotton Mills, succeeding the late John W. Wallace. Mr. Herman has been a director of the mill since 1944.

John J. Valter, manager of the finishing division at Brookside Mills, Inc., Knoxville, Tenn., has resigned from that position.

J. J. McSunas, Jr., has been appointed merchandiser of the fabric finishes department of S. C. Johnson & Son, Inc., Racine, Wis. He will direct the merchandising and promotion of Johnson's new fabric finish, Drax, in the textile industry. Mr. McSunas headed Drax sales in New York for the fabric finishes department. He has been with the company since 1936.

Troy H. Sutton has been promoted from second hand to overseer of weaving at Bath (S. C.) Mills, Inc.

Preston S. Arkwright, Jr., has been elected president of Georgia Power Co., succeeding W. E. Mitchell, resigned.

#### OBITUARY

Russell H. Stevens, 57, comptroller of Arthur D. Little, Inc., industrial chemists, died recently. He had been associated with the company for 24 years.

Alfred F. Lichtenstein, 68, former president of Ciba Co., died recently in New York City. He is survived by his wife and a daughter.

Adelbert E. Parks, 75, senior member of the firm of M. H. Parks Co., textile spool and bobbin manufacturer of Winchendon, Mass., died Feb. 25. He is survived by a son.

C. W. Geier, superintendent of Robbins (N. C.) Cloth Mill, died March 5. He is survived by his wife and a son.

Milton G. Smith, retired textile engineer and former resident of Atlanta, Ga., died suddenly March 9 in Greenville, S. C. Mr. Smith was a founder of the Southern Textile Exposition. Surviving are his wife, one son and one daughter.

Philip Y. DeNormandie, 79, formerly treasurer of the Pepperell Mfg. Co. and onetime partner in the former firm of Bliss, Fabyan & Co., died Feb. 25. He is survived by his wife.

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Grover C. Barfield, Sr., 62, vice-president and a director of Swift Mfg. Co., died March 13 at Columbus, Ga. He is survived by his wife.

William C. Ryckman, 65, vice-president and general superintendent in charge of production at Lane Cotton Mills Co., New Orleans, La., died March 11. He is survived by his wife and two daughters.

Barney B. Hayes, 73, president of Hayes Cotton Mills, Lenoir, N. C., and of Hudson (N. C.) Cotton Mfg. Co., died March 15. He also was secretary-treasurer of Moore Cotton Mill Co. of Lenoir and Caldwell Cotton Mill Co. of Hudson. He is survived by his wife, one son and one daughter.

Maj. Walter B. Moore, 83, retired textile manufacturer, died March 12 at York, S. C. At one time he was head of three textile manufacturing plants. He is survived by his wife, a son and a daughter.

Eric C. Gyllensvard, export and New York office manager of Farrel-Birmingham Co., Inc., was killed Feb. 17 when struck by lightning in Sao Paulo, Brazil, where he was on business. He is survived by his wife and a daughter.

Charles S. Rowe, 54, sales manager of the fine chemicals division of the organic chemicals department of E. I. du Pont de Nemours & Co., died March 1 in Wilmington, Del. He is survived by his wife, a son and a daughter.

# For the Textile Industry's Use

#### EQUIPMENT - SUPPLIES - LITERATURE

# Shelton and Associates Is Manufacturers' Agency

Shelton and Associates is the name of a new manufacturers' agency recently organized by O. B. Shelton of Greensboro, N. C., and R. Scott Baum of Charlotte, N. C. The firm, which will specialize in materials handling and shipping room equipment, will represent the following manufacturers in North and South Carolina: Service Caster and Truck Co., maker of MO TOW lift fork trucks; Harry J. Ferguson Conveyor Co.; Acme Staple Co.; Marsh Stencil Machine Co.; Rubberoid Co.: Standard Holloware Co. Mr. Shelton will not be active in the company's affairs. All sales will be handled through the Charlotte office under the direction of Mr. Baum. J. F. Smith will represent the firm in South Carolina

#### McCaskie Is Producing New Duplex Cloth Rolls

William McCaskie, Inc., of Fall River, Mass., manufacturer of textile specialties, is now producing its new Duplex cloth rolls, a two-purpose cloth roll constructed to last indefinitely and one that can be collapsed within the roll of cloth, easily slipped out and reassembled in a moment's operation by the weaver. The use of this new roll is said to eliminate the necessity of spare rolls and the necessity of handling them from one department to another. The new roll gives the cloth a

positive take-up at the start of a new cut of cloth by simply tucking the cloth in the space between the two bars of the roll. The company states that no change of loom parts is necessary when applying this new type of roll. They are made to order to fit any width of magazine loom and, with slight change, can be adapted to any loom.

#### Charlotte Advertising Firm Honored By National Group

Ayer & Gillett, Inc., advertising agency of Charlotte, N. C., recently was taken into membership of the American Association of Advertising Agencies, becoming the first agency in North Carolina to win 4-A recognition and the second one in the South At-

lantic states to be so honored. Membership in the association indicates that, professionally and ethically, an agency meets the highest standards of practice in advertising. Ayer & Gillett handles a number of accounts in the textile industry.

#### Story of Wool Told In W. F. Leggett Book

The Story of Wool, a book that will be of interest to students, chemists, textile technicians and engineers as well as workers in the various branches of the textile industry, has been announced by Chemical Publishing Co., Inc., 26 Court Street, Brooklyn 2, N. Y. The author, William F. Leggett, is associate technical editor of Rayon Textile Monthly, and is the author of two other books, Ancient and Medieval Dyes and The Story of Linen. The book reflects long study and careful gleaning of facts relating to wool and provides 'a historical background for those interested in this phase of the ancient textile industry. A deeper understanding of the habits and culture of ancient craftsmen, as revealed in the pages of this book, may prove an incentive for individual textile artistry in this modern machine age.

#### Callaway Mills Sponsor For Textile Dictionary

Callaway Mills of LaGrange, Ga., has published the first edition of the Callaway Textile Dictionary, a 390page volume containing concise definitions of more than 6,000 words and terms used in connection with textile manufacturing and textile products. The dictionary represents a consolidation of the work of three authors-W. L. Carmichael, faculty member of the A. French Textile School at Georgia Tech; George E. Linton, dean of the textile department, Fashion Institute of Technology and Design, New York City; and Isaac Price, member of the staff of Straubenmuller Textile High School in New York City. Copies of the dictionary are available from Callaway Mills.

# Milton Harris Associates Operating Under New Name

Milton Harris Associates announces a change in name to Harris Research Laboratories, and the formation of a new organization, Harris Instruments, Inc. Harris Research Laboratories will be staffed by the personnel of the present organization, which consists of 30 chemists, physicists, engineers, etc., and will continue its same program of research, development and consultation for the textile and allied industries. Harris Instruments, Inc., will conduct instrumentation research and develop and manufacture new research instruments, especially for the textile industry.

#### Square D Manual Starter For Textile Applications

A new manual starter designed especially to meet the exacting requirements of textile mill service has been announced by the industrial controller division of the Square D Co. Both sturdy and compact, the new starter is suitable for mounting on the driven machine, wall, pedestal or any other location convenient to the operator.



First cost is low, motor overload protection is included, and operation is both safe and economical. The new design features a sturdy toggle-type operating mechanism not affected by vibration and suitable for operation in any position. (See illustration.) Handle is recessed to protect against breakage in the event of accidental impact. A direct mechanical linkage permits the contacts to be forced open in the event of accidental freezing. The unit base construction employed uses a

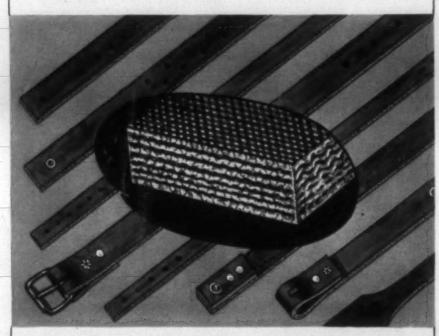
molded porcelain base which has a high dielectric strength, low moisture absorption rate and does not carbonize. The contacts and other live parts are deeply recessed in the base which forms an effective barrier between poles and affords ample protection against accumulation of dust and lint.

Starters having either two, three or four poles are available for two wire single phase or for three or four wire polyphase systems up to 600 volts A. C. or 250 volts D. C. Double-break silver contacts have higher rupturing capacity and eliminate flexible connectors. Contacts require no dressing and can be replaced with the use of only an ordinary screwdriver. Protected type overload relays suitable for group fuse applications are standard on the new type of starter. Trip-free construction is provided to prevent the operator from deliberately holding the starter contacts closed under an overload condition. Additional information on this new starter may be obtained by writing Square D. Co., Industrial Controller Division, 4041 North Richards Street, Milwaukee 12, Wis. Refer to Class 2510 loom switch.

# Du Pont Booklet Explains Use Of Dyes In Textiles

Questions commonly asked about dyes are listed and answered in a new educational booklet, Harnessing the Rainbow For You, issued by the dyestuffs division of the Du Pont company's organic chemicals department. It is published for distribution in connection with the recently completed motion picture "Harnessing the Rainbow." The movie is designed primarily for home economics groups and for sales training courses in stores. Copies of the booklet are also available to teachers, students and others with special interest in dyes and textiles. Use of dyes in textiles is discussed in detail, with information on methods of application and color fastness. The booklet points out that, in general, the type of dye selected depends on the type of fiber in the fabric and the service requirements of the finished article. It explains how fabrics of blended fibers can be given striking color combinations by the use of one or more dyes simultaneously. Readers will learn that the fastness of every dye is known through laboratory tests conducted by dye manufacturers to determine resistance to light, laundering, dry clean-

# mpare



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ing, perspiration, rubbing, bleaching and ironing.

The booklet tells why vat colors are the fastest dyes known to science and includes a list of fabrics for which they are generally used. To guide consumers in identifying fast colors, attention is called to the fact that many manufacturers furnish tags or labels with their merchandise, giving information on the color performance that can be expected. In this simple question-andanswer form, the what, when, why, how and where of modern dyes are all made understandable. Requests for the booklet should be addressed to the Advertising Department, Dyestuffs Division, E. I. du Pont de Nemours & Co., Wilmington 98, Del.

#### New Calco Technical **Bulletin Now Available**

The paper, "The Dyeometer: An Instrument for Studying Color Reactions," by Kienle, Royer and McCleary, which appeared in the December issue of the Textile Research Journal, has been reprinted as Calco Technical Bulletin No. 792, for immediate distribution. The Dyeometer, a laboratory instrument developed in the Calco research laboratories, was exhibited at the A. A. T. C. C. convention in December. This instrument makes possible the study of the dye liquor throughout the dyeing period. With the automatic recording spectrophotometer any changes taking place in a particular portion of the spectrum can be determined. The Dyeometer now in use in the Calco sales application laboratories makes possible rigid control of variations of temperature, volume and circulation of the dyebath, the motion of the material being dyed and the surrounding atmosphere. Copies of Calco Technical Bulletin No. 792 may be obtained upon request from Calco sales representatives or by writing the Advertising Department, Calco Chemical Division, American Cyanamid Co., Bound Brook, N. J.

General Dyestuff Corp., 435 Hudson Street, New York 14, N. Y., recently released six new circulars for use in the industry as follows: G-453, Algosol Olive Green IB-CF; G-456, Fast Blue Salt BN; G-467, Celliton Fast Black BTNA; G-468, Diamine Brown 3GN Conc. CF: G-469, Supranol Brilliant Red BA-CF; and G-471, Indanthrene Brilliant Orange RKA Paste for Printing.

## Automatic Control System For Continuous Bleaching

New literature in the form of a fourpage bulletin on an automatic control system for continuous bleaching is being released by Taylor Instrument Cos. Textile manufacturers will find much interest and profit in this bulletin's approach to the new method of controlling the temperature, pressure and liquid level in the continuous bleach operation. The bulletin presents a concise story of how complete automatic control provides ultimate economy and satisfactory performance of the processing equipment. Schematic drawings show how the application of instruments to each phase of the continuous bleaching operation can insure the highest quality of processing so that uniformity of color, appearance and absorbency may result. For a copy of this new Bulletin 98174, write on your company letterhead to Taylor Instrument Cos., Rochester 1, N. Y.

#### Cook-P & N Machine Co. Handles Finishing Units

The formation of Cook- P & N Machine Co., Inc., an affiliation of the former Cook Machine Co. of Waltham, Mass., and Peterson and Neville, Inc., of Boston, Mass., was announced recently. Cook Machine Co. has been well known in the textile finishing trade for its line of finishing equipment, and in particular for its Cook patented detwisting machine, widely used in the opening of all types of fabrics. Peterson and Neville, Inc., has been engaged in the design and construction of heavy sheet metal products for over a quarter of a century.

The stated aim of the new company is to offer the trade a broadened line of modern textile finishing machinery on improved delivery schedules. The company also states that both its increased manufacturing facilities and the experience of its founders center on more economical and effective adaptation of its equipment to individual mill needs.

The company is sole licensee for the Cook patented machines, and produces also a complete line of modern finishing equipment, designed for the most effective use of stainless steel. This equipment includes steam agers, padders of all types, dye becks, dye kettles, squeezers, rope soapers and washers, slack washers, tight rope washers, continuous bleach ranges, cloth open-

ing ranges, stretchers, scutchers, J-boxes and similar equipment. The main office and manufacturing facilities of the new company are located at 367 Dorchester Avenue, Boston 27, Mass.

#### English Bobbin Cleaner Distributed By Landis

Oliver D. Landis of Charlotte, N. C., has been appointed United States representative for the Mordale patented automatic loom-motion bobbin cleaner, manufactured by E. Gordon Whiteley, textile machinery firm of Morley, England. The appliance, which can be fitted to most types of automatic bobbin-changing looms, is fully automatic and deposits the pile of weft in one box and the bobbin in another. The manufacturer claims that the Mordale bobbin cleaner needs minimum attention, will strip efficiently any kind of yarn, and will not damage bobbins. Over 1,000 units were delivered in the first six months after production was started. In addition to this appliance, Mr. Landis is agent for several other lines of textile mill equipment and supplies.

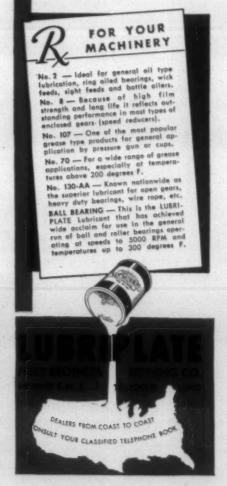
#### Arnold, Hoffman Offers New Textile Detergent

Arnold, Hoffman & Co., Inc., Providence, R. I., announces Ahcovon T, a new detergent recommended for general textile use in scouring, dyeing and finishing. It is efficient in hard water, acid and alkali. Ahcovon T is a sulphonated petroleum derivative, possessing superior stability to lime and salts than soap. It is light buff in color, in dry flake form, and relatively nonhygroscopic. A one per cent solution has a pH of 7.3 to 7.8. It is now ready for delivery in fibre drums of 200-225 pounds.





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#### V-Belts Now Made With Rayon Cords

Rayon is now being used as the reinforcement, or tension member of all its light duty and automotive V-belts, it is announced by B. F. Goodrich Co., Akron, Ohio. Tension members are the parallel groupings of cords which carry the load in a V-belt. The new rayon construction, as compared to the cotton previously used gives longer belt life, particularly at elevated temperatures, which are becoming an increasing factor in this field, as belt speeds and loads are increased. All the V-belts are made with the company's heat resistant rubber compounds. Accelerated laboratory tests indicate that life of light duty and automotive V-belts has been increased at least 50 per cent through the use of rayon cord in tension members, the company says.

Permanent stretch of the new belts is much less than the old, because of the characteristic of the rayon cord itself and the increased adhesion between cords and rubber. This advantage mounts as high temperatures are created by the flexing action of the

belts. While nearly all drives using light duty and automotive V-belts have some take-up available, they are generally hard to adjust. The high elongation of the rayon cords during a change in tension, plus the high rate of recovery and the small changes in permanent length makes them particularly suitable for these drives since they carry their maximum loads much longer than those made with cotton. The new rayon-reinforced V-belts are preferable for some services to V-belts in which steel is used as the sustaining member. Tension on the steel-reinforced type falls rapidly as cover wear occurs, because of the lack of stretch in steel. High percentage of recovery after stretch of the rayon cords permits maintenance of tension, and they are in addition more resilient and resistant to shock fatigue.

## New Screen Table Adhesive Developed

A new screen table adhesive, manufactured by National Adhesives of New York, does away with the timeconsuming method of nailing or pinning cloths or silk screens to printing tables, both in textile printing and silk screen printing processes. The screen printing-table adhesive—Resyn Adhesive Q3613—holds unprinted cloth to the screen table during the printing operation. Adhesion is sufficient to prevent slippage of the material during printing, yet tests have shown that the cloth is readily removable after the printing has been completed, with no adhesive sticking to the printed cloth or in any way damaging it.

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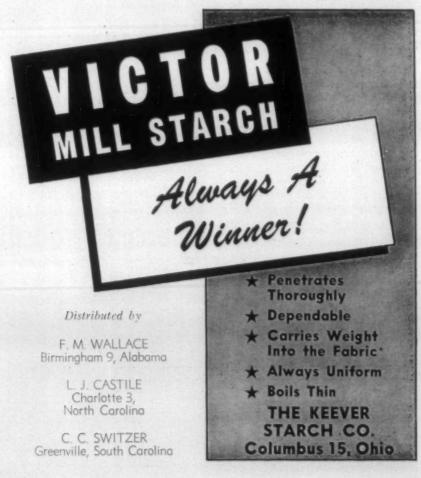
Resyn Adhesive Q3613 is a light gray emulsion that should be used as supplied. Field tests, according to National's technicians, show that the new product maintains sufficient tack for screen table printing for a period of several weeks. National points out, however, that the working life of the adhesive will be cut where the cloth being printed on is fuzzy or leaves deposits of lint. National Adhesives is an affiliate of National Starch Products, Inc., 270 Madison Avenue, New York 16, N. Y.

#### 25 Years Of Textile Resin Finishing Covered

Twenty-five Years of Textile Resin Finishing, a review of progress in textile resin finishes over the last quartercentury, has been published by American Cyanamid Co. textile resin department. The bulletin concisely reviews the history of resin finishes, briefly describes the basic applications that have been made in the past, present development, and future probable types and uses for textile resins. Included also is a bibliography for the use of those wishing to continue their reading beyond the bulletin. Twenty-five Years of Textile Resin Finishing, known as Textile Finishing Bulletin No. 116, is available upon request to the Textile Resin Department, American Cyanamid Co., Bound Brook, N. J.

#### Improved Speed Selector For V-Drives Announced

A new and improved infinite ratio Speed Selector, designed as an independently mounted transmission, is jointly announced by Speed Selector, Inc., Cleveland, Ohio, and B. F. Goodrich Co., Akron, Ohio. The Speed Selector employs planetary motion with four variable pitch sheaves and two standard cross section V-belts to provide any speed from zero to 800 r.p.m. at constant torque, from a constant



speed power source. The multiplying action of the planetary converts a slight change in sheave pitch diameter to a wide change in output speed. The high and nearly constant belt speeds permit almost instantaneous changes in output speed by the convenient lever action self-locking control handle. The new Speed Selector models, available in one-half, one and two horsepower output, are simple and sturdy in construction. Cast iron sheaves on hardened and ground shafts and guide pins with sealed prelubricated ball bearings are mounted in sturdy cast aluminm housings. Optional V-belt or flexible coupling input and output make the Speed Selector easily adaptable for mounting in any position on new or existing equipment. Major advantages claimed for the Speed Selector are infinite ratio, quick speed changes, smooth operation, high efficiency, adaptability, simplicity, preselection of speeds and ease of installation.

# Permaproof Compounds Described In Pamphlet

Featured by swatches of both untreated and treated fabrics, plain and in colors, a new broadside on its Permaproof fabric treating compounds has just been published by B. F. Goodrich Co., Akron, Ohio. Coies are available upon request. Permaproof compounds, which are flame, water and mildewproof when applied to fabrics, were developed by Goodrich in collaboration with Treesdale Laboratories, Inc. The original 100 Series was created for military service to prevent the spread of flash and incendiary fires and the 200 Series for processing indoor decorative and utility fabrics followed. The 200 Series, which was introduced first with a solids content of 60 per cent, now has six other formulations of varied solids percentages for specific applications. The broadside describes tests used to prove the flame, water and mildew processing ability of the material, outlines its advantages and discusses the way in which it withstands weathering, laundering and dry cleaning. Methods of application are outlined.

A new textile reference manual, No. 9305, has been issued recently by Brown Instrument Co.; a division of Mineapolis-Honeywell Regulator Co., Philadelphia, Pa., as a guide in the selection of control equipment best suited for individual requirements.

#### EXPERIENCE TO EASE YOUR SIZING PROBLEMS Solving sizing problems does not represent to us a simple matter of supplying our products -it calls for expert analysis by men of our staff who are at home in the mills and who speak the language of technical SLASHING WEAVE-WELL knowledge. PRODUCTS Our men are practical men; just as our products are practical products -between them they furnish you the service you seek. Either a phone call or a letter will bring a North Man SHUTTLE to you-ready and eager to uphold GREASE-RITE our long and unbroken record for TALLOW quick and efficient handling of emergency situations. Among the nation's largest manufacturers of dressings for all warp yarns FINISHING Northol P.C. for use with any make of FINISH-RITE machine, for setting twist and PRODUCTS conditioning yarns



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Write "W-C," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

Growing Southern textile school desires man with textile degree to teach design and weaving courses. Practical mill experience desirable. Excellent opportunity for qualified person. Reply stating training and experience to "Textile School," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

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Raw stock dyeing all commercial and vat colors. Prices extremely low and submitted upon request.

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Day Second Hand and Night Second Hand, Carding; also Spinning Overhauler. South-ern Indiana mill, 20,000 spindles.

Write "C. S. M." care Textile Bulletin. P. O. Box 1225, Charlotte 1, N. C.

#### TECHNICAL SALES

Established chemical company requires two young chemists or engineers for new textile sales department. Textile mill or laboratory experience required. Age 28-35 preferred. One man will be located in the South, the other in New England. Address summary of education and experience, salary requirements and availability to Box 506, Norwalk, Conn.

#### Supt. of Weaving Wanted

Southern mill: weaving fancies, dobby and plain fabrics on 1,000 looms. Wide variety of fabrics; frequent changes. Weaving yarn numbers 10's to 110's from coarse carded, fine combed, spun rayons, and blended yarns. Man wanted is the kind that stays on same job for

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WANTED—Job as second hand of card room. Have 35 years' experience as fixer and card room work and four years as second hand. Have family and strictly sober. Can give references. Write "C. R.," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

MMEDIATELY AVAILABLE—Assistant to Superintendent of Maintenance and Supplies. Several years' experience in large mill placing orders and keeping records of supplies and in card room, spinning room, etc. Also other clerical work in office. One year college education; married; references. Write "HVE," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

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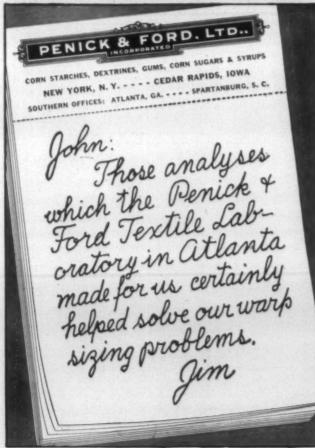
#### MEN WANTED - POSITIONS OPEN:

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#### Standard Numbering System for Bearings

A standardized numbering system for ball and roller bearing dimensions was presented recently to the American Standards Association by the Anti-Friction Bearing Manufacturers Association. The new code, presented by H. O. Smith, executive secretary of the association, calls for a common means of identifying types, sizes, tolerances, modification of internal design and lubrication of standard ball and roller bearings to meet all the requirements of users. This new identification system, he pointed out, utilizes a combination of figures and letters alternately and is flexible enough to take care of future changes in design, tolerances, lubricants and separator materials and is semi-descriptive rather than a dead code.

Mr. Smith pointed out that the industry's new numbering system permits the expression of more variable descriptions in terms of four digits, whereas the Army-Navy numbering. system, which grew out of the war, is not only less flexible but must resort to the use of 12 digits since its system is basically a numerical one. In other words, the manufacturers of ball and roller bearings are able to convey all required information to bearing users in a much shorter and simpler form of standard identification. To the manufacturer this is of particular importance since in many types of bearings in the small size range it is sometimes impossible to stamp either the bearing or the package itself with an identification code which numerically runs into as much as 12 digits. In a bearing designation such as the code 25BC02, it was explained that the 25 indicates that the inside diameter of the bearing is 25 mm.; BC is a code designation for single row radial non-loading groove assembly; and, finally, 02 indicates the series of the bearing and its outside diameter and width. Wherever more specific information is required such as seals, cages and lubricants, code letters and numerals are added. Under the Army-Navy system the 25BC02 bearing would be identified as 111X02502.

Mr. Smith revealed that the industry's new numbering system was used in its ball and roller bearing specification manual published in October, 1942, and was adopted by the Society of Automotive Engineers for inclusion in the S. A. E. handbook first issued in 1943. In presenting the industry's proposal to the American Standards Association, he pointed out that during the period of transition from the use of individual manufacturers' identification codes to adoption of the industry's standard coding, it will be necessary for both codes to appear on individual catalogues and packages until time and familiarity permit an industry-wide usage of the new numbering system.

#### Heavy Demand for Space At Exposition

The excellence of the recent air conditioning exposition in Cleveland, officially, the seventh International Heating and Ventilating Exposition, is reflected in the enthusiastic response to the announcement that the eighth display of its kind is to be held at Grand Central Palace, New York, Feb. 2-6, 1948. The response to the announcement of the eighth exposition was almost instantaneous, resulting in an unprecedented demand for space. In less than three weeks 370 spaces had been engaged, exhausting all space on the first two floors and a large portion of the third.

This apparently more than justifies the decision of the council of the American Society of Heating and Ventilating

Engineers that the exposition should be held concurrently with the 1948 society meeting. Behind this decision was the belief that the unusually high rate of progress and new developments at this time demands prompt dissemination of information through the effective medium of the exposition which is recognized as the largest and most important event of its kind in the field of heating, ventilating and air conditioning. Every class of exhibit featured at Cleveland will be represented in the forthcoming display, which, like its predecessors, will be sponored by the American Society of Heating and Ventilating Engineers, in connection with its annual meeting program. As heretofore, the display is under the management of the International Exposition Co. Charles F. Roth is manager and E. K. Stevens as ociate manager.

#### Cotton Advisory Group Holds First Meeting

Formation of an 11-man cotton advisory committee to assist the Department of Agriculture and the National Advisory Committee set up under the Hope-Flannagan Agriculture Research Act of 1946, was announced recently by Agriculture Secretary Clinton P. Anderson. The committee, which held its first meeting in Washington March 13-14, is composed of Ransom E. Aldrich, producer, Michigan City, Miss.; C. L. Andrews of C. L. Andrews & Co., Memphis, Tenn.; D. W. Brooks, general manager of Cotton Producers' Association, Atlanta, Ga.; Harry Caldwell, producer, Greensboro, N. C.; F. E. Callaway, Jr., Callaway Mills, LaGrange, Ga.; C. A. Cannon, president, Cannon Mills, Kannapolis, N. C.; R. A. Graham, producer, Greenville Tex.; Horace Hayden, president of National Cotton Ginners

Association, Oklahoma City, Okla.; Burris C. Jackson of Jackson & Co., Hillsboro, Tex.; S. R. Nichols, president of Southern Compress Co., Des Ark, Ark.; and Elwood H. Smith, producer, Casa Grande, Ariz.

At the first meeting of the group specific cotton research projects which have been proposed as part of the new agriculture program were reviewed. Projects include both utilization studies suggested by the Agriculture Research Administration and agencies, and cotton marketing problems.

#### British To Make More Textile Machinery

United Kingdom textile machinery manufacturers have drawn up plans for a big expansion in production during 1947. A high proportion of the increased output will be earmarked for India, South America, Egypt and other cotton growing countries anxious to develop their own cotton industries. Last year was a difficult one for British textile engineering firms, as most of them were engaged in the change-over to peace production, and it was only in the last three months or so that production got into full swing. The 1947 target of Textile Machinery Makers which is biggest of these firms, represents a 100 per cent increase on 1946. Next year a further expansion is expected, as the firm plans to have a big wartime factory, taken over a few months ago, fully operated by then.

#### Textile Engineer Moves To New Office

James W. Cox, textile engineer, has moved to new office quarters at 40 Worth Street, New York City. He was formerly located at 320 Broadway.

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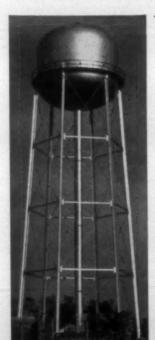
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#### Increase Shown in Rayon Broad Weaving

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A total of 425.8 million linear yards of rayon broad woven fabrics was produced in the fourth quarter of 1946, according to a recent report by the Bureau of the Census. This total was four per cent greater than in the third quarter of 1946 and seven per cent more than during the fourth quarter of 1945. Production of every type of fabric increased except "all other rayon mixtures," which showed a slight decrease. Production of 259.7 million yards of 100 per cent filament rayon fabrics represented an increase of five per cent over the previous quarter. The 20.2 million yards of silk, nylon, glass and other fabrics not classifiable as rayon fabrics showed an increase of 16 per cent over the third quarter of 1946 and 295 per cent over the fourth quarter of 1945. A total of 100,373 looms were in place on Dec. 28, 1946, the report reveals, of which 94 per cent were active on the first shift, 86 per cent on the second, and 54 per cent on the third. The 127 million loom hours operated was seven per cent more than in the third quarter of 1946.

#### Industrial Rayon Makes Annual Report

Industrial Rayon Corp., in its annual report to share-holders for the year 1946, recently reported net sales of \$39,059,000, which represents an increase of \$6,187,000 over 1945. Hiram S. Rivitz, president, in his letter to share-holders, pointed out that this increase resulted from the first year of full operation of completed expansions, the reduction of wartime inefficiency, and improvement in management techniques. These factors, together with lowered Federal income tax rates and the reduction in charges for depreciation, interest and preferred dividends, all contributed to the increase in net earnings to \$8,822,040, which, after payment of dividends on preferred stock which has since been called, left a balance of \$8,602,665, or \$5.66 per share of common stock.

As previously reported, these earnings included approximately 47 cents per share realized from the sale of foreign patents, and compared with net earnings in 1945 of \$1.31 per share, which included 25 cents per share received through the sale of patents. The company had total cash and government securities at the year end of \$11,700,000, compared with \$6,185,000 at the end of 1945.

Mr. Rivitz reported that wage rates have been increased by more than 75 per cent since 1941, during which period the cost of wood pulp has gone up approximately 65 per cent and coal by over 90 per cent. Rayon yarn prices, he pointed out, had been unchanged for a period of five years, from 1941 to November, 1946, at which time the company increased its yarn prices by approximately 12 per cent, in line with general increases by others in the industry. A second price increase, announced earlier this month, brought the aggregate increase to slightly more than 20 per cent above 1941, and compares with increases during the same period of 120 per cent in raw silk and raw cotton; 90 per cent in the cost of cotton goods, and almost 60 per cent in the cost of clothing.

With industry shipments of viscose textile rayon in 1946 only three per cent above 1941, because of wartime controls and conditions which arrested expansion in this field, it is generally agreed that today the textile industry is supplied only to about 50 per cent of its requirements, Mr. Rivitz said. "We regard the needs of this important division of

the industry as representing permanent requirements not inflated by the carry-over of war-created shortages. There is need, therefore, for practically double present installed capacity for the production of textile type viscose rayon yarn to satisfy market demands," he added. "While we determined it was only sane to defer the plans for new plant construction discussed in our report for the year 1945 due to the great uncertainties, high cost, and inefficiency of building and plant construction, we recognize the real business need of our company for such additional facilities as even more acute today than it was a year ago. It is, therefore, foremost in our program to start plant construction just as soon as it seems prudent to do so."

The report pointed out that the entire industry's tire rayon capacity of 240 million pounds can only supply about two-thirds of the rayon tire cord needed to meet current tire production schedules which reflect the major tire companies' recognition of rayon's superiority for all classes of

tires.

#### F. T. C. Would Prohibit Corporate Mergers

More than 117 corporate mergers in the textile and apparel industry between 1940 and 1946, with a drive toward what he called vertical backward integration in these fields, was cited March 10 by Robert E. Freer, acting chairman of the Federal Trade Commission, in a report to Congress in connection with F. T. C. recommendations that Section 7 of the Clayton Act be amended. Mr. Freer explained that the constantly increasing number of mergers was legal as long as Section 7 does not specifically prohibit corporate purchase of the assets of other corporations under certain

situations, and suggested that Congress authorize such prohibition and also tighten the restrictions on outright mergers.

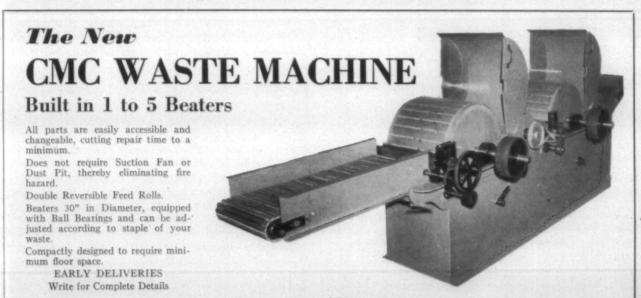
"Obviously," said the F. T. C., "many horizontal acquisitions have been instituted by the desire of large concerns to eliminate troublesome competitors producing a similar line

of goods."

Mr. Freer's list of textile and apparel corporate mergers includes: Burlington Mills Corp. acquired 19 other concerns; J. P. Stevens & Co. acquired 11; Textron, Inc., acquired nine; Beaunit Mills, Inc., eight; Susquehanna Mills, six; Bates Mfg. Co., five; M. Lowenstein & Sons, Inc., four; Jacob Ziskind (president and treasurer of Crescent Corp.), four; Chadbourn Hosiery Mills, three; Crescent Corp., three; Ely & Walker Dry Goods Co., three; United Merchants & Manufacturers, three; and Wayne Knitting Mills, three. In addition, the F. T. C. pointed out, the 11 textile firms acquired by J. P. Stevens & Co. controlled some 30 Southern and New England mills.

#### National Textile Seminar Set for May 12-16

Richard S. Cox, dean of Philadelphia Textile Institute, has been elected committee chairman of the National Textile Seminar to be held at Shawnee-on-the-Delaware, Pa., May 12-16 under the auspices of the Philadelphia Textile Institute. The seminar was created through a group of top textile administrators and technologists comprising a cross-section of the entire textile industry and met at Hershey, Pa., in July, 1946. Featured speakers and topic developers for the coming seminar, men of nationally known importance, will be announced soon.



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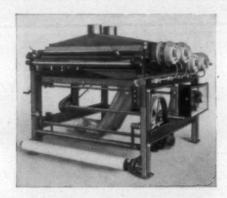
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#### New British Latex Combines With Fabrics

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A new form of rubber latex which will be of great importance in textile manufacture has been developed in Britain. This latex, known as Positex, has the outstanding feature that its particles can be deposited on textile fabrics, whereas those in normal latex cannot. If a hank of wool is placed in a bath of Positex, it quickly absorbs all the rubber particles, but these will remain almost undetectable by eye or hand. Handle will in fact remain almost normal, for the rubber is deposited as discrete particles and not as a continuous film. The rubber deposit acts as a flexible binding ingredient holding the individual fibers together.

Soft twisted varn if treated with Positex will therefore have the tensile strength of hard twisted yarn. Fabrics with a softer and more luxurious handle can be produced without loss of strength and will stand up to much greater wear. The Positex process has special value in the manufacture of carpets, since it reduces balling up or pilling of the surface.

Since the particles of rubber help to cement the individual fibers together, Positex can also be used in the preparation of felts from non-felting materials such as cotton or jute. These felts will not be waterproof and will maintain their air permeability. The fact that they are springy and do not lose shape gives the process significance also in boot and shoe manufacture. Positex is a result of research carried out jointly by the British Rubber Producers Research Association and the Wool Industries Research Association. It is now out of the experimental stage and two United Kingdom firms have received license from the B. R. P. R. A. to carry out the process on a commercial scale.

#### Carbide and Carbon Has New Vinyl Yarn

A new versatile vinvl yarn that shows promise in a practically unlimited number of textile applications will soon be available in semi-commercial quantities from Carbide and Carbon Chemicals Corp. The new yarn has dimensional stability in boiling water and can be readily dyed dark and brilliant shades with a wide range of the usual synthetic fiber colors. It also has the high strength and good resistance to chemical attack that are characteristic of vinyl yarns now in commercial production. Like them, it will not support combustion, is water resistant, and is completely unaffected by micro-organisms and insects.

Marketed as Vinyon yarn, Type N, the new material is basically different from other vinyl materials. It is produced from a white, powderey resin that results from the copolymerization of vinyl chloride and acrylonitrile. This resin is dissolved in acetone and spun on equipment similar to that in general use for making acetate rayon. Both the resin and finished yarn will be available in limited quantities this summer from development units now under construction at the South Charleston, W. Va., plant of Carbide and Carbon

Chemicals Corp.

Dimensional stability is an outstandisg property of the new yarn. Immersion in boiling water produces a shrinkage of less than 0.5 per cent, and exposure to steam at 250° F. results in a shrinkage of only about six per cent. Its ultimate tensile strengths range from 3.5 to 4.0 grams per denier, wet or dry, and it has an ultimate extensibility of 12 to 30 per cent. There will be several different types of yarn offering various combinations of properties, depending upon the end-use intended. The present natural color of Type N is a light gold and it is expected that a completely

white yarn will soon be produced. The present yarn can be dyed successfully by regular commercial processes using a wide range of acetate and vat dyestuffs, and it can be readily bleached by the ordinary commercial methods. Dyeing can be done at the usual temperatures, but deeper shades and virtually complete penetration result from dyeing at a boil. Tests on dyed materials indicate them to be quite crock-fast to cracking and fast to washing.

Materials made with this new Vinyon brand yarn will neither mildew nor support bacteria, molds, or fungi of any kind and are not attacked by insects, including carpet beetles. They have good electrical insulating properties, are unaffected by perspiration, and extensive exposure tests show no indications of allergic reactions. In addition, they are resistant to most common solvents and chemicals except under the most severe conditions, such as for example cyclohexanone at high temperatures. In view of the widespread interest in measures to protect the public against fire hazards, the flame resistance of fabrics made with Vinyon yarn, Type N, is especially noteworthy. A further advantage is that these fabrics can be dry cleaned without ill effects.

Because of its properties, this yarn is readily adapted to new textile applications. Fabrics based on the new yarn, unlike the majority of synthetics, feel warm to the touch and have a "hand" surprisingly similar to silk. These characteristics are expected to prove advantageous in foundation garments, dress goods and bathing suits. Full-fashioned hosiery of the new fiber is still in the experimental stage, and results indicate that satisfactory colors and resistance to distortion and retention of shape are obtained. Rain and sportswear, in addition to a wide variety of industrial materials such as filter fabric and sewing thread, have shown unusually promising results.

Because of the strength and abrasion resistance of this material, as well as its resistance to mildew and insects, it holds promise for nettings, draperies, rugs and upholstery fabrics. Other applications which appear successful include fireproof materials, fishing lines and narrow fabrics.

Only small amounts of the yarn are being made at present from laboratory facilities, but when the production units are operating, considerably larger amounts of yarn will be spun in standard deniers from 35 to the heaviest counts required for industrial uses. Distribution of the yarn for test and small-scale fabrication will be handled by the company's New York office, 30 East 42nd Street.

#### A. S. M. E. At Work On Textile Lubrication

The lubrication committee of the American Society of Mechanical Engineers textile division is planning the third in a series of conferences for the purpose of simplifying and improving textile mill lubrication. This conference is scheduled for May 9 at the Copley Plaza Hotel, Boston, Mass. Invitations are extended to textile machinery manufacturers, lubricant companies and allied firms. Admission will be by luncheon tickets which may be obtained from L. T. Parkman, care of Westinghouse Electric Corp., 10 High Street, Boston, Mass. Accommodations will be limited to 125 persons.

The textile division of the A. S. M. E. has been active with the subject of textile mill lubrication for some time. C. D. Brown, director of research for Draper Corp. and then chairman of the A. S. M. E. textile division, during this period selected L. D. Cobb of the New Departure Division, General Motors Co., to serve as chairman of

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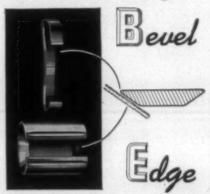
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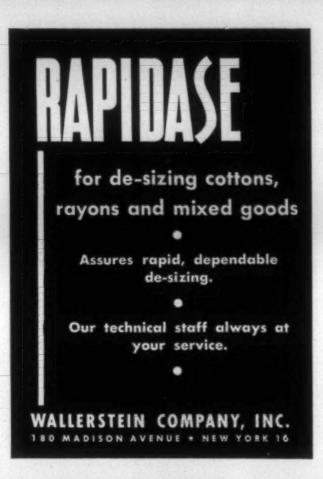
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the committee on textile lubrication. Mr. Cobb was responsible for stimulating considerable interest amongst the textile machine manufacturers and lubricant companies in an endeavor to formulate a universal plan of common identification of mill lubricants somewhat along the lines of S. A. E. numbering. Due to conditions beyond his control it was necessary for him to relinquish the chairmanship to R. D. Brouwer, also of New Departure, who has continued to serve as chairman since that time. A. B. Studley of SKF Industries, Inc., Boston, Mass., in the meantime succeeded Mr. Brown as chairman of the A. S. M. E. textile division.

Two meetings have been held in Boston—Sept. 21-22, 1945, at the Associated Factory Mutual Fire Insurance Cos. inspection department, and March 15, 1946, at the Hotel Manger, Boston. Both meetings were well attended by representatives from a number of leading textile machinery manufacturers and lubricant companies. At the 1945 meeting a sub-committee composed of H. E. Handy, Saco-Lowell Shops; R. L. Marble, Curtis & Marble Machine Co.; S. R. Walsh, H & B American Machine Co.; F. L. Thomason, New York & New Jersey Lubricant Co.; F. S. Johns, Socony-Vacuum Oil Co.; and R. G. Shepherd, Associated Factory Mutual Fire Insurance Cos., studied the various responsibilities to be shared by the machinery manufacturers, lubricant producers and textile mills.

The conference in 1946 drew almost double the attendance and resulted in the formation of a second sub-committee composed entirely of representatives from the lubricant industry. Their function was to formulate a common lubricant identification system. It should be stated that trade names of lubricants were acknowledged to be not only desirable but necessary as indicating a standard of quality, whereas a complementary numbering or letter system would indicate similar application characteristics. The committee was composed of Mr. Thomason, A. F. Brewer, Texas Co.; J. B. Tuttle, Standard Oil Co. of New Jersey; R. W. Flynn, Gulf Oil Corp.; R. J. Bender, Sinclair Refining Co.; and G. J. VanLiew, Socony-Vacuum.

At the coming meeting next May, reports of the subcommittee will be presented for consideration and acceptance. At a future meeting it is planned to extend an invitation to the textile industry for an open forum on problems pertaining to all phases of textile mill lubrication.

#### A. A. T. C. C. Sections Schedule Meetings

The executive committee of the Southeastern Section of the American Association of Textile Chemists and Colorists met Feb. 15 in Atlanta to plan events for the year and set dates for four future meetings of the group as follows: March 22, Columbus, Ga.; June 7, Atlanta, Ga.; Sept. 13, Columbus, and Dec. 6, Atlanta. A. Kempton Haynes of Rohm & Haas Co., Inc., Atlanta, appointed the following committees: program, W. B. Griffin; student activities, Norman P. Arnold; membership, Gillespie Smith; publicity, Howard M. Waddle; corporate membership, Norman P. Arnold; arrangements, George E. Missback; intersectional paper committee, James D. Dean; research: James L. Taylor, S. Jack Davis, Walter M. Scott, Howard M. Waddle, Curt Mueller, Leslie Bamberger, R. O. Simmons, M. T. Barnhill, W. B. Griffin and A. K. Haynes.

Plans for the spring meeting of the Piedmont Section of the American Association of Textile Chemists and Colorists, to be held at the O. Henry Hotel at Greensboro April 12, have been completed and the following program announced: a technical session will be held at 2:30 and the speaker at this time will be M. C. Welker of American Cyanamid Co., whose topic will be "The Use of Ion Exchange Resins for Demineralizing Water." The banquet will be served at 7:30 with the speaker for this occasion being W. D. Carmichael, Jr., controller and business manager of the University of North Carolina. The Starmount Golf Course will be available to members the morning of April 12 but those playing will be required to tee off by 9 o'clock. It was announced that tickets for the banquet would be \$4 each with members urged to make reservations at once and not later than April 7. Reservations and checks should be mailed to Roy J. Beauregard, Fairforest Finishing Co., Spartanburg, S. C.

The summer outing of the group will be held at the Ocean Forest Hotel, Myrtle Beach, S. C., June 20-21. No reservations will be accepted for the outing April 1 to 15. No room assignments will be made until April 15 and no acknowledgments mailed until May 15. Every member must write for his own reservation.

#### Fiber Consumption Almost At Record Level

Total domestic shipments of rayon yarn and staple fiber in February amounted to 70,300,000 pounds, according to the March Rayon Organon, statistical publication of the Textile Economics Bureau, Inc. For the first two months of the year, domestic deliveries aggregating 147,000,000 pounds were ten per cent over shipments in the corresponding period last year. February rayon filament yarn deliveries amounted to 55,700,000 (39,300,000 pounds of viscosecupra yarn and 16,400,000 pounds of acetate), were 11 per cent higher than the same month in 1946. Shipments of staple during the month amounting to 14,600,000 pounds (11,100,000 viscose and 3,500,000 acetate) were ten per cent greater than February, 1946.

Indicative of the huge demand for textile products and the speed with which the industry has met it is the 1946 consumption of textile fibers. According to the *Organon's* compilation, total consumption of cotton, rayon, wool and silk in the United States amounted to 6,474,800,000 pounds, an increase of nine per cent over 1945 and only six per cent below the 1942 peak level. Compared to annual consumption in the five years of 1936 to 1940, for instance, consumption last year was 50 per cent greater.

Cotton consumption last year amounted to 4,844,700,000 pounds, an increase of 7½ per cent over 1945 and 22½ per cent above the highest pre-war level set in 1940, but 14 per cent below the peak consumption in 1942. Cotton represented 74.8 per cent of the 1946 four-fiber total, the smallest percentage of participation recorded since 1920.

Rayon on the other hand, strengthened its position during the year with 875,400,000 pounds going into fabrication, comprising 13½ per cent of the four-fiber total. Rayon consumption last year was 81 per cent greater than it was in 1940. Wool consumption also reached a new high level in 1946 with an aggregate of 748,400,000 pounds being used (scoured basis), 15 per cent over 1945 and 99 per cent above the 1936-40 average. Wool increased to 11.6 per cent of the 1946 four-fiber total, the highest relative position it has held since 1935.

Raw silk, which came back to civilian use in a substantial way for the first time since 1941, was consumed by the



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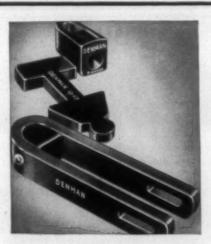
Alkalies and Chemical Products Manufactured by The Solvay Process Company



New York 6, N. Y.



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DENMAN
PICKERS LUG STRAPS
HOLD-UPS

Lowest Cost Per Loom Per Year

#### The Terrell Co., Inc.

CHARLOTTE, N. C.

James F. Notman Needham, Mass.—N. E. States E. W. S. Jasper, Inc. Elizabeth, N. J.—Penn., N. J. and N. Y. W. J. Westaway Co., Ltd. Hamilton and Montreal, Canada Geo. Thomas & Co. Manchester, England—European Agt.

textile industry to the extent of 6,300,000 pounds during 1946. Consumption of silk was small compared to pre-war standards and consisted of a small amount from residual military stocks plus sales of Japanese silk by the United States Commercial Co. and some free imports from Italy and China.

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In a compilation of production of rayon, nylon, silk and related broad woven fabrics, the *Organon* reveals that the total 1946 output amounted to 1,815,000,000 linear yards, or an average of 34,900,000 yards weekly. The figure sets a new record for the rayon broad weaving industry, exceeding the previous peak in 1944 by seven per cent and the pre-war 1939 output by 30 per cent.

Year-end stocks of gray goods in this field amounted to 37,900,000 yards, or slightly over one week's supply based on December average weekly production. These stocks were 12 per cent above those held by weavers at the end of 1945. Rayon yarn stocks held by weavers at the close of the year amounted to 31,300,000 pounds, in line with the inventory position prevailing throughout the year. Weekly production of rayon gray goods during January averaged 36,600,000 yards, or ten per cent above the January, 1946, rate of output. Rayon yarn stocks held by weavers at the close of January, 1947, totaled 32,000,000 pounds, representing a small increase over the year end level.

A study made by the *Organon* of component raw materials used in the manufacture of rayon showed that during 1946, 426,000 short tons of cellulose were used, 6½ per cent more than in the preceding year. Last year's consumption of both dissolving wood pulp and purified cotton linters surpassed previous levels. Dissolving wood pulp consumption at 321,000 tons was eight per cent above 1945, and purified linters pulp was two per cent greater than the preceding year. It is noted that the use of linters was increased in the manufacture of rayon by the acetate process. In 1946, the linters pulp comprised 37 per cent of total cellulose consumption by the acetate process as against 31 per cent in the preceding year. On the other hand the use of wood pulp in this process declined from 69 to 63 per cent.

Although the alkali supply situation shows no sign of immediate improvement, there are indications of a more plentiful supply of soda ash as well as caustic soda and its co-product chlorine by the latter part of 1947. For some time the supply of caustic soda, one of the basic raw materials in rayon, has been critically short and on several occasions in the last year, production schedules of viscose plants were cut down as a result. An important factor in the caustic and chlorine supply picture is the availability of tank cars in which chlorine is transported. Inability to ship chlorine means a proportionate reduction in the output of caustic soda. Despite operational difficulties including labor troubles, there has been an increase in the rate of output of both caustic and chlorine during recent months. But the increase continues to be surpassed by demand, as caustic soda is consumed in large quantities by such industries as chemicals, rayon and cellulose film, petroleum refining, soap, pulp and paper, lye and cleansers, textiles, rubber reclaiming, vegetable oils and miscellaneous uses.

#### Nylon Yarn Price Reductions Announced

A general price reduction, effective on all nylon yarns the fifth reduction since the first price list was issued in January, 1940—was announced last month by E. I. du Pont de Nemours & Co. The new prices represent an average reduction of six per cent, ranging from five cents to \$1 per pound.

Under the new schedule, 30-denier, ten-filament yarn, which was introduced in the hosiery field seven years ago at \$4.27 a pound, will now sell at \$2.55. Another popular hosiery yarn, 40-denier, 13-filament, which cost \$3.52 a pound in 1940, took another ten-cent reduction to \$2.15 a pound.

Robert A. Ramsdell, manager of the nylon division, said these new prices were made possible by technical advancements. "These reductions," he said, "carry out a policy of long standing of Du Pont to pass on to consumers a full share of the benefits derived from persistent research efforts

and engineering improvements in our plants.

"In addition to present plants, we now have extensive yarn capacities under construction at Martinsville, Va., and at Chattanooga, Tenn., and we are expanding raw material facilities elsewhere. The nylon hosiery shortage in retail stores has been greatly relieved during the past year," he said, "and nylon yarns have promising prospects in many other fields beyond hosiery. Our laboratories are being kept at work developing improved nylon yarns and new applica-

Two new yarn combinations-30-denier, 23-filament and 70-denier, 70-filament on bobbins-were markedly reduced in price. The new 30-denier yarn, which was previously sold at \$3.25 a pound, was lowered to \$2.75 and the 70denier yarn was reduced from \$2.15 to \$1.90 a pound. Both are semi-dull yarns (type 200) of normal tenacity. The reductions on principal items are as follows:

					Frice/10.			
Denier	Filaments	Turn/in.	Type	Package	Old		New	
15	1	0	200	Bobbins	\$6.50		\$5.50	
20	7	16	200	Bobbins	3.65		3.35	
20	20	34	109	Bobbins	5.00		4.70	
30	10	1/2	200	Bobbins	2.75		2.55	
30	23	16-34	200	Bobbins	3.25		2.75	
40	13	16	200	Bobbins	2.25		2.15	
40	34	16	200	Bobbins	2.40		2.25	
60	20	1,6	200	Bobbins	1.90		1.85	
60	20	612-7	213	Cones	2.60		2.55	
70	34	16	300	Bobbins	1.90		1.85	
70	34	16	400	Bobbins	1.90		1.85	
70	34	7	407	Cones	2.55		2.50	
70	70	15-34	200	Bobbins	2.15		1.90	
100	34	34	300	Bobbins	1.85		1.80	
150	68	94	300	Bobbins	1.85		1.80	
210	34	1	300	Bobbins	1.60		1.55	

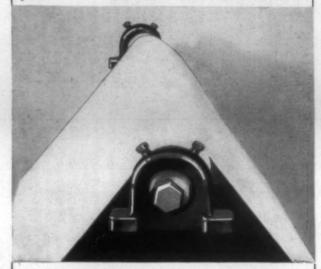
Type 109 Bright, normal tenacity, no size or oil, No. S-139 spin finish, not

twistset. semidull, normal tenacity, no size or oil. semidull, normal tenacity, 2.0 per cent size, 3.0 per cent oil, not twistset. Bright, high tenacity, no size or oil. Semidull, high tenacity, no size or oil. Semidull, high tenacity, 2.5 per cent size, 2.5 per cent oil, not twist-

#### Du Pont Sets New Production Record In 1946

In an annual report generally optimistic in tone, E. I. lu Pont de Nemours & Co., Wilmington, Del., disclosed hat its 1946 operations had set a new production record, in line with the "high degree of industrial activity" enoyed by the chemical industry throughout the country. The eport, distributed to 87,600 stockholders, said Du Pont production in 1946 was substantially larger than that of ny previous peacetime year and more than double 1939 totals. High-level production was achieved, it was said, despite material shortages, and was attributed "in large measure to the satisfactory labor-management relations' which prevailed in the company through the year. Employment at the close of 1946 was 74,000, a gain of ten per cent over the previous year, and up 50 per cent from 1939. Sales for 1946 reflected production gains with a total of \$648,-

# Mount Hope Free-Wheeling EXPANDER



#### All Widths Now Available

The free-wheeling idea of the Mount Hope Expander has proved so successful that we have now brought out a Heavy Duty type which can be used for all usual widths of cloth which are too wide or heavy for our Regular Duty type.

This expander has the same outside diameter of Neoprene sleeve as does the regular Free-Wheeling Expander, but has a  $1\frac{1}{2}$ " axle instead of the  $1\frac{1}{16}$ " axle now used. It can be furnished to accommodate medium or heavyweight fabrics up to 120" face, or lightweight fabrics, paper or film, of even greater

Other advantages of the Heavy Duty Expander. as well as the regular Free-Wheeling Expander, if used properly, are as follows:

Because the warp is subjected to minimum tension less bow than usual is required, resulting in extra long life for the Neoprene surface of the expander.

Expanders may be set at any desired angle to the cloth to adjust the amount of widthwise stretch produced.

Ball bearings, grease packed, are securely mounted in steel spools to outlast many Neoprene sleeve coverings, and so designed that they cannot stick nor turn on the axle and cut it.

These Expanders are suitable for all fabrics from rayon marquisette to tire cord and also for plastic film and paper.

#### MOUNT HOPE MACHINERY CO.

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Representatives - John H. Andresen, Inc., 138 Grand St., Paterson, N. J.; Ingalls Engineering Co., 1214 Union Trust Bldg., Providence, R. I.; Slaughter Machinery Co., Charlotte 1, N. C.; Sidney Springer, 316 East Commercial Street, Los Angeles 12, California; W. J. Westaway Co., Ltd., Hamilton and Montreal 3, Canada.

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A GREAT TEXTILE SELLING ORGANIZATION

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COMPANY, INC.

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#### Package Dyeing and Bleaching

ALL TYPE COLORS
ON COTTON YARNS

PIEDMONT PROCESSING CO., Belmont, N. C.

#### CLARK'S WEAVE ROOM CALCULATIONS

...can be of much assistance to mills changing over from other constructions to bag osnaburg and bag sheeting.

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# The GASTONIA MILL SUPPLY CO.

Industrial, Textile, Electrical and Plumbing Supplies & Equipment



GASTONIA, NORTH CAROLINA

700,000, highest in the company's 145-year history, and six per cent over a year ago.

Dividends paid in 1946 totaled \$7.00 a share on common stock, the same rate as was paid in 1939, 1940 and 1941, and increased substantially from the rate paid during the war years. It was noted that the percentage of earnings paid as dividends was lower than the average of the past ten years because of requirements for cash in connection with the company's program for expansion and betterment of its plants. Common stock dividends in 1945 were \$5.25 a share. Operating income for the year was reported as \$83,-962,000 after taxes, to which was added \$28,658,000 from the investment in General Motors Corporation and other non-operating revenues. Total earnings were equivalent to \$9.44 per share on the common stock after payment of dividends aggregating \$4.50 per share on preferred stock. Earnings on common stock in 1945 were \$6.29 per share. In relation to increased operative investment, the report showed the company's rate of operative return to be just slightly below that of 1939 "although sales had increased 125 per cent and investment in operating facilities had increased 56 per cent."

"During the war years 1942 through 1945," wrote President Walter S. Carpenter, Jr., "the per cent return on investment declined to levels 40-45 per cent below 1939, as the result of war-time tax rates, lower prices on sales to the government, etc. With the end of the war, the company's per cent return on investment was again in line with the returns realized in the pre-war years 1939 through 1941."

The index of Du Pont sales prices, while up slightly over the previous year, was at a level approximating that of 1939. During the same period, the Bureau of Labor Statistics' wholesale price index increased 57 per cent. The cost of the principal raw materials purchased by the company rose 64 per cent over the period from 1939 to 1946, while the average hourly wages of Du Pont employees advanced 57 per cent. Taxes, per dollar of operating income before taxes, although under the war-time peak, were still 65 per cent above 1939. The increases were partially offset during this period by "an increasingly larger volume of production" and "progressive improvements in manufacturing process and facilities," the report said.

A portion of the Du Pont expansion program has been deferred by material shortages and other unusual construction conditions. Construction costing \$92,300,000 was effected during 1946, providing, in addition to renewal and betterment of equipment and facilities, enlarged capacity for production of nylon, acetate and high-tenacity viscose rayon yarns, plastics, cellophane, synthetic methyl alcohol, ethylene glycol, and agricultural fungicides and veterinary chemicals. Extension of research facilities also has been delayed by shortages of materials and other considerations. Plans were disclosed, however, for construction of new laboratories or additions to existing units which, when complete, will more than double the size of the company's research establishment. The program contemplates expanded facilities for research at 15 company locations, the com-

The year saw virtual completion of the Du Pont war production responsibilities, with termination of explosives manufacture at the last of the government-owned ordnance plants operated by Du Pont. Operation of the Hanford Engineer Works, a unit of the government atomic energy program, was turned over by Du Pont to General Electric last September.

#### Electrification of the Southern Textile Industry

(Continued from Page 41) wound on larger bobbins. Another variation of spinning is twisting, which combines and twists spun yarns together to get greater weight or strength. These machines are essentially duplicate of spinning frames except that no drawing is included in the feed rolls.

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After yarns are twisted they are completed except for any treatment that may be required to prepare them for weaving. In the case of the filling or woof none is usually necessary. Warp yarns, however, must be wound on beam rolls of approximately the width of the cloth to be woven. Further, the individual yarns are sized or starched to give them greater strength and abrasion resistance. This is necessary in weaving for the yarn to withstand the shuttle friction. Fig. 6 shows a cotton spinning frame. Fig. 7 shows a typical set of curves used in applying motors to spinning. These are simplified curves for normal applications.

The winding of the yarn from bobbins or spools onto beams is done on a warper. This may be either a drum or core type warper with the first using a constant speed induction motor and the second either multi-speed squirrel cage or variable speed direct current. The average mill will have two to ten warpers. Motors are three or five horsepower linestarted and equipped with brakes for quick stopping. Drop wires automatically stop the warper whenever a feed is broken.

The operation of yarn starching is known in textile terms as slashing, and the machine a slasher. Any faulty slashing is quite costly in that it results in excessive loom stoppages with loss of production and lower grading of cloth due to more warp knots. To provide more exacting tension and speed control a modern slasher drive uses adjustable voltage direct current with sectional motors and a tension regulated beam wind-up.

The slasher consists of a stand on which unstarched beams are mounted, a sizebox with rolls for depositing wet starch on the warp, a set of steam drying cylinders or a hot air drying chamber, a delivery roll for pulling the yarn and a beam roll for winding up the finished warp. Individual motors are applied to the sizebox, delivery roll and the beam in order to provide tension control between these sections. Occasionally motors are also applied to cylinders. Because of low driven speeds required, gearmotors are usually used with floor mounting and driving by chain to their respective rolls. The starch and delivery rolls are usually nine inches in diameter and the beam roll starts on a six-inch core and builds up to between 24 or 30 inches when full. Usual speeds are four to five yards per minute for creeping and threading with operating speeds of 20 to 65 yards. Some newer slashers are operated as high as 100 yards per minute. A typical slasher would have a 11/2 horsepower motor on the sizebox or boxes, three horsepower on the delivery roll and five horsepower on the beam wind-up. The beam wind-up motor must operate over the entire speed range of the slasher with either an empty or full beam and maintain constant, a present yarn tension. It replaces a slip clutch on the old mechanical drives which permitted greater slippage as the beam filled up. This resulted in uneven winding tension with soft and hard spots in the finished beam and tangles and breaks at the loom.

A five-to-one speed range motor by field control is used with the shunt field, energized by a Rototrol (rotating



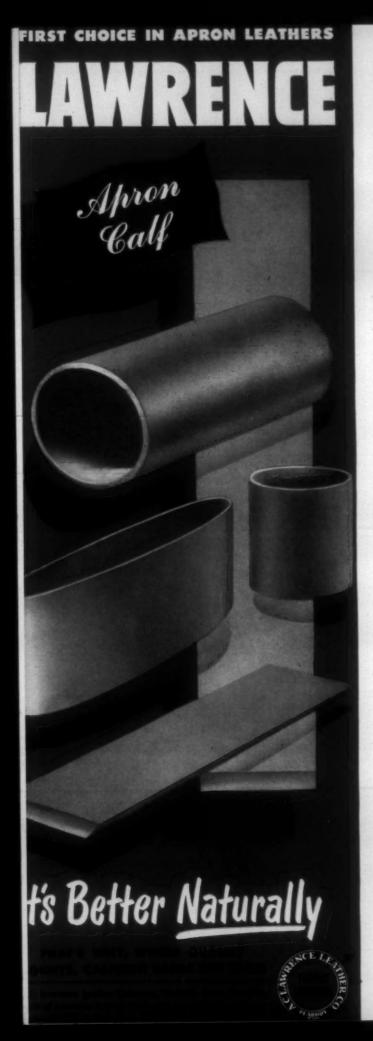
Y ... will cure the most chronic finishing problem.

A concentrate of natural enzymes, with not even a suspicion of harsh alkalis, acids or destructive chemicals... Exsize dilutes quickly, works smoothly, gently, gives a soft, elastic feel, a good "hand." More—a few cents' worth will desize hundreds of yards of cotton or cotton-mixed goods.

Write for our free booklet, or have our Pabst Technical man show you the extra efficiency of Exsize either in our laboratories...or, if you prefer, in your own plant.

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regular). The Rototrol has three fields-a differential pattern field excited from the constant potential exciter and in series with a tension adjusting rheostat, an accumulative field sensitive to beam motor armature current, and the usual series field to obtain amplification. The Rototrol maintains constant armature current with changing speed by changing the motor field current. This results in varying motor output torque as necessary to maintain constant yarn tension with changing diameter. The control includes necessary starting equipment for the M. G. set, a motor operated rheostat to give smooth acceleration and deceleration, tension control stations for each motor, a preset speed control rheostat, and several start-stop-slow pushbuttons. Fig. 8 shows the output end of a slasher showing the beam and control station. Fig. 9 is an elementary diagram of the electrical equipment.

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All yarn processing as described is necessary to prepare cotton so that it may finally be woven into cloth. The operation of weaving is still the same as in ancient days, in that a shuttle must be thrown between warp threads alternately from one side to the other. Now, however, it is done at high speeds by machines rather than slowly by hand. An average cotton mill will have from 400 to as high as 3,000 looms. Many are still driven by lineshafts and flat belts but

the number is being steadily reduced.

The present standard motor drive is an enclosed non-ventilated motor mounted on the loom and driving by pinion to a loom main gear. These main gears average about 175 teeth. The motor pinion will vary as determined by loom and motor speeds. For ordinary cloth of weights similar to sheeting, looms will operate at 175 to 210 picks, or shuttle throws, per minute. For heavier goods or intricate weaves the speed will reduce down to possibly as low as 100 picks for heavy duck. When first individually motorized, the majority of looms required one-half and three-quarters horsepower motors. Since that time loom speeds have steadily increased until at present the one horsepower rating is most common with some  $1\frac{1}{2}$  and two horsepower, but no new installations below one horsepower.

#### **Enclosed Motors Are Standard**

The atmosphere in a weave room is very linty and it is necessary to protect the motors. Since loom motors are small, totally enclosed motors rather than lintfree ones were adopted as standard. These motors are, however, rated at a 40° C. continuous rise rather than the usual 55° C. There is a dual reason for this—first, the motor must be able to pull the loom during the breaking-in period when the great number of new tight bearings cause extra loading, and secondly is the fact that a loom load is of pulsating nature and the motor losses and heating are higher than for an equivalent steady load.

Early loom motors used standard motor parts which were usually of low inertia and resulted in the motor passing from motoring to regeneration with each loom pick. As a result of considerable study and test, present motors have a more nearly correct balance of motor inertia to match the loom, eliminating the regeneration and increasing motor efficiency on this type of load. Efficiency is an important factor where hundreds of motors are operated in a single room.

Individual loom motors are controlled by manual switches at the motor which include some thermal device for over-

load protection. Several motors are grouped on a common feeder protected by an air circuit breaker located in a distribution panel. The number of motors tied to one feeder is determined by the size of circuit breaker permitted by the wire used and thermal capacity of the individual motor starter thermal overload elements. This feeder breaker must hold in when the looms are all linestarted simultaneously. With one horsepower, 550-volt motors, eight are usually grouped together on one 25-ampere breaker. It usually works out for a convenient physical arrangement that about 50 looms can be handled from one panelboard. The feed to this panelboard is supplied through a magnetic contactor so as to give undervoltage protection and permit starting of the group from one pushbutton station. A modern weave room is shown in Fig. 10.

This has been a brief outline of cotton manufacturing with the object of showing the importance of the industry as an electrical power consumer and user of electrical equipment. All types of electrical equipment are used from central station generating equipment through motors and control to modern electronic devices. The industry is vitally interested in new developments such as new motor insulation, unit substations, dielectric heating, electrostatic air cleaning, air conditioning and electronic drives.

#### A New Pattern in Textiles

(Continued from Page 30) the skill of the technician and the practicality of the salesman. Out of these laboratories comes the positive scientifie "know" that precedes and guides Textron's "know-how." A Textron product is quality-checked at every point. The yarn itself is examined for uniformity, strength, breaks and cleanliness. After the accepted yarn is woven into cloth, scientific devices measure the thickness of the fabric, count the number of threads per inch, test color fastness and wearing qualities. Finally, robot "hands" of steel actually tear the material apart, recording its strength on a dial.

Even then, Textron is not satisfied. When the perfect cloth woven from perfect yarn is made into a garment, that, too, goes to the laboratory. It is tossed into a washing machine and checked for shrinkage, stretch and color-fastness. Its seams are pulled apart, its buttons torn off, by a machine which indicates the pounds of strain required. And finally, because there is a "feel" about garments that can only be measured in terms of the wearer's satisfaction, laboratory workers put them on and give them normal usage.

All this has become everyday routine with Textron. Beyond this, its research scientists make test-tube evaluations of every important new development in the textile field. They themselves are constantly evolving new coatings, materials and processes.

We don't claim, of course, that such laboratory work is unique with Textron. But we do maintain that in Textron, his scientific information and control radiates from the aboratories into every plant and office with a directness and effectiveness possible only in an integrated organization. And it radiates along two-way lines—while scientific knowledge goes out from the "labs" for practical application, problems and suggestions flow back.

All of the merchandise which comes off our production ine carries the Textron label, assurance of controlled quality. In addition, every article bears a tag giving the





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to the Textile Industry for Over One-third Century

COTTON - RAYON - SILK - AND WOOL

Surveys — Reorganizations — New Plant Developments for Textile Bleaching, Dyeing, Printing and Finishing

Building and Machinery Appraisals and Surveys (Reorganizations and new Developments) Mechanical and Operating Surveys—New Methods. (Reorganizations and New Developments) Order Scheduling and Planning Work Load Studies, Job Analysis and Job Evaluation, with Incentive Plans Standard Cost Installations Cost Control Methods

Labormeter-Burden-meter-Waste-meter

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All Pickers — The Originals
GROOVED LAP PINS

Superior for all Synthetic Fibers

Immediate Delivery-Contact Us

A. C. BOYD, Agent, U.S.A.

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fiber content, and telling honestly whether the article is washable or dry cleanable.

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The Textron line is distributed to department stores and quality specialty shops by Textron's own sales organization—which has done some pioneering of its own, incidentally. In the first place, the salesmen know their products from fiber to finish, and make no cloudy promises. Secondly, with regional offices in eight cities, they give year-around, on-the-spot service to clients—quite different from the usual jobbers' salesman who makes a swing around the territory infrequently.

Lastly, Textron isn't satisfied with just selling its products to the retail store. Its integration includes helping the retailer sell to the ultimate consumer, and making sure the latter is satisfied. This unique service is carried on by 12 public relations women, one or two for each sales territory. They are so thoroughly Textron-trained that they can answer questions ranging from the middle initial of a director to the quality of a particular shower curtain. They carry no samples and give no high-powered demonstrations of selling. But tactfully, intelligently and helpfully they suggest merchandising methods and window display ideas, and keep tabs on competitors' products and general fashion trends.

We feel that the more a salesperson knows about a product, the more interest and enthusiasm she will have in selling it, and the more helpful she will be to the prospective customer. Our public relations girls are Textron's contact with these salespeople. When you consider that in one New York department store there are 487 persons selling Textron products, you can see what a big job our girls have.

You might get the idea from my enthusiasm that we expect Textron products practically to sell themselves. We don't; we believe firmly in advertising. We are now advertising in 11 consumer publications, including Life, Ladies Home Journal, Woman's Home Companion, Good House-keeping, McCalls, Better Homes and Gardens, House Beautiful, Vogue, Harper's Bazaar, New Yorker and Esquire. This represents a combined, guaranteed circulation of more than 23 million. Of course, there are some duplications in readers but there is a plus value, too, in the number of indirect readers we reach through these publications. We feel fairly safe in saying that we are reaching an estimated three-fourths of the 36,000,000 families in this country.

If you've seen our ads in national magazines, you know that—like the company they represent—they combine originality with enthusiasm. If you haven't seen them, perhaps the best way to describe them is to quote a remark made to me by a friend the other day. "Whoever thinks up those dream-fantasies for Textron," he said, "must go to bed every night with a double helping of wedding cake under his pillow!" Granted our ads are completely different. Actually, these modern advertisements make startlingly good sales-sense—the more effective, we think, because it's done with a magic wand instead of a cudgel.

In *all* its advertising—magazine, newspaper, and a wide range of other effective media—Textron sells more than a quality controlled product with a fair price tag. It sells the Textron principle of integration, and the enthusiasm and skill of the thousands of men and women who have put it into successful operation.

Like the third-generation weaver who runs the product of his loom through his fingers and says pridefully to himself, "My grandfather would have liked this cloth." Like the designer who, on her own time, dirt-farms the rare flowers that are her inspiration for the color and pattern of lovely fabrics. Like the salesman who tells his wife: "I sold \$1,600,000 worth of Textron products last year."

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And, in the last analysis it's the shopper along thousands of America's main streets who, displaying her purchase to a neighbor, says with complete confidence and quiet pride, "It's Textron."

#### Two S. T. A. Groups Set Meetings

The Eastern Carolina and Gaston County Divisions of the Southern Textile Association have meetings scheduled March 29 and April 4, respectively. The spring meeting of the Eastern Carolina Division will be held in Raleigh at the school of textiles, North Carolina State College. The program for this meeting has been announced as follows: Invocation; address of welcome by Dean Malcolm E. Campbell of the school of textiles; address—"Story of a Couple of Guys Named Joe" by Thomas L. Carroll of the Wachovia Bank & Trust Co.; appointment of committees; address—"Safety in the Textile Industry" by Thomas R. Self of American Mutual Liability Insurance Co.; question and answer period; report of nominating committee and election of officers. The program will begin at 9:45 a. m. and all textile operating executives are invited and urged to attend.

Carl Brandt, research director at Whitin Machine Works, will be the featured speaker at the meeting of the Gaston County group which will meet at the Boy Scout headquarters in Gastonia at 7:30 p. m. April 4. Mr. Brandt's topic will be "Laboratory Equipment and Its Value to the Average Mill."

#### Textile Fraternity Takes New Members

Thirty-two leading students at North Carolina State College school of textiles, Raleigh, have been inducted into the membership of Phi Psi, honorary textile fraternity. The new members are Willard H. Blue, Jr., Nashville, Tenn.; Herman R. Harris of Lynnhaven, Va.; Archer E. D. Booker of Halifax, Va.; and the following North Carolinians: lames H. Sparks of Rutherfordton, William L. Rankin, Jr., of Gastonia, Lowell A. Shive of Gastonia, Charles R. Ibach of Charlotte, Henry G. Alexander of Charlotte, Forrest B. Gardner of Hendersonville, Richard N. Edkens of Chapel Hill, Joshua H. Slaughter, Jr., of Raleigh, Joseph H. Smart of Monroe, Jacob T. DeLamar of Charlotte, Edwin N. Brower, Jr., of Hope Mills, James S. Rotan of Cramerton, Charles W. Ward of High Point, Charles W. Armstrong, Ir., of Salisbury, Harold B. Peterson of Brunswick, Charles B. Harper of High Point, William D. Moser of Burlington, H. Taylor Moser of Burlington, Donald M. Seltzer of Conord, George W. Pulliam, Jr., of Raleigh, Wayne D. Alexander of Concord, Jennings M. Bryan, Jr., of Burlington, John A. Moore, Jr., of Edenton, Frank C. Sowers of Salisbury, Richard F. Calloway of Henderson, Norfleet M. Gibbs of New Bern, Earle A. Hamrick, Jr., of Shelby, Walter W. Gayle, Jr., of Charlotte, Richard M. Salisbury of Scotland Neck and Fred M. Sizemore of Concord.

Leo H. Rich, Inc., industrial consultant firm, recently opened offices at One Wall Street, New York City. The firm builds individuality and increases sales by the correlation of economic and marketing research, industrial design and public relations.

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# **Cotton Goods Market**

Textile manufacturers are continuing operations at near capacity levels as a result of record wide mill margins, the difference between raw cotton prices and the price of unfinished cloth, the Department of Agriculture said recently.

Mill margins averaged 51.60 cents per pound in January, equivalent to 62 per cent of total cloth prices, compared with 25.93 cents in August, 1946, which was 43 per cent of total cloth prices. The January rate is 2½ times the 1945-46 season average and four times the 1935-39 average.

Mill consumption of raw cotton averaged 42,090 bales per working day in January, about 11 per cent more than the December rate and the highest rate for the same period since 1942. If mill use during the remaining six months continues at the average rate for the first half of the season, the Department of Agriculture predicted, the total consumption for the year will equal 10,300,000 bales.

Exports of cotton textiles from the United States in 1946 were the second largest in history, amounting to 778,185,404 square yards as compared with the all-time peak of 818,750,954 square yards in 1920, according to the Textile Export Association of the United States. The statistics are official and were obtained from the records of the U. S. Department of Commerce.

With restrictions lifted as of March 15, the export trade will soon be in a position to supply its old-time markets and cultivate outlets developed in the war years. At the present time, American textiles are being sold in 119 foreign markets and the bulk of these markets can be held in the event that Japanese production is held within bounds.

Foreign inquiries for cotton gray goods, mostly in print cloths and sheetings, have been coming into Worth Street commission organizations in New York City at an accelerated pace since the Department of Commerce announced dropping of export controls on March 15.

All types of lightweight fabrics are in demand, market circles report, though it is in sheetings and print cloths that the real need lies. Many of these feelers for goods have been presented in person though the bulk have been coming via cable.

Market sources report that, from present indications, present price levels will be maintained through the third quarter. While few mills plan price increases, they declare that the rise in labor costs, and the estimates for another short cotton crop, has caused the price level of the market to stabilize at the present point.

Many in the market are of the opinion that fourth quarter offerings will be at high prices though opinion is strong that this is an unhealthy condition. It is pointed out that the market is following the pattern of 1920, and that a definite downswing is bound to occur.

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# **Cotton Yarns Market**

Buyers seeking mercerized yarn in Philadelphia report a dearth of such supplies. Allocations have not been increased for many months in some cases, and prospects for larger poundages in the future are not considered especially bright. Mercerized yarn users stress that they are prepared to meet present quotations, but cannot secure additional lots of yarn, regardless of price. This bears out reports of sellers who say they could sell much more yarn without any quibbling about price. Hosiery mills are said to be meeting present mercerized prices in spite of rising resistance to price on their own production.

Several Southern carded cotton yarn mills are now operating only a few days a week, and some have suspended operations entirely in order to adapt machinery top production of finer counts and install new equipment, according to reports. Market men say that these mills, which produce many thousands of pounds of coarse yarns per week under 8s, are endeavoring to switch to 14s to 30s which are currently in great demand and which are bringing exceptionally high prices. The poor response with which buyers are greeting offerings of 1s to 8s has hastened their decision.

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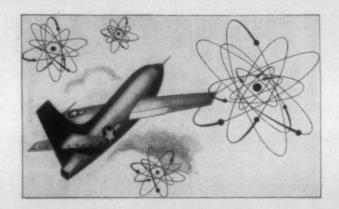
Combed cotton yarn prices have been raised three to six cents per pound in the past two months by some mills, as buyer pressure for such yarns failed to show any signs of letting up, market observers report. There are cases, it is added, where the increase has been sharper.

Initial price adjustment in combed yarns after the windup of price control was a realignment of the differential between singles and plied yarns. Thus, for several months after the end of control the only change in prices of some combed yarn sellers was an adjustment in single yarns, bringing prices up to what were considered proper levels.

Once this task was completed, some spinners held prices steady until the last few months, when, on the basis of higher cotton and labor costs, many mill men decided to pull out the stops and let buyer demand set the pace in combed prices.

Variation in yarn prices is not noticeable at the combed yarn end, distributors say, with individual mills setting prices in line with the quality of the yarn and the estimated ability of customers to meet quotations. Sellers also observe that in all yarns, prices are strong in cases where the particular yarn is known to be especially well adapted to the machinery of certain customers.





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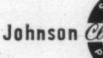
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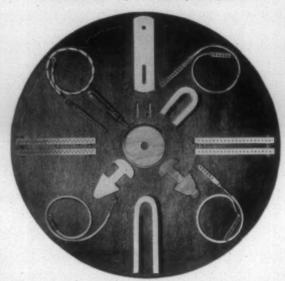
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# Myzelly Myleym Gligerm

[Exclusive and Timely News from the Nation's Capital]



C. I. O. and A. F. of L. leaders abdicated their leadership in facing labor legislation. Only negative criticism and obstructive abuse has been offered on proposals to curb excesses in union power, restore equality in bargaining, and make unions responsible. Leaders have ridiculed all proposals to protect the public from monopolistic power, jurisdictional strikes, boycotts, irresponsible breaking of contracts, and gangsterism and criminality in union activities. Ostrich-like, they have refused to admit abuses even exist, even in the face of an unassailable mountain of contrary testimony. Labor statesmanship, if it ever existed, has been buried under a mountain of smug platitudes, bluff, bluster and obstruction.

William Green denounced every pending proposal for corrective legislation with one minor exception. He used shop-worn epithets of "vindictive," "obnoxious," "bitterly reactionary," "viciously arbitrary," and "propagandistic hogwash." He didn't want to do anything about anything. Senator Ives (R., N. Y.) exploded, and told him his own reactionary attitude toward union aggression and brutality is the enemy of harmonious relations with management, and the condition he sought to gloss over will not longer be tolerated by the country.

Not in a generation has such a mountain of astounding and stunning revelations of racketeering, gangsterism, graft, double dealing, brutality, thuggery, communistic plotting and murder been piled up by a Congressional committee as has flowed out before the House Labor Committee on activities of some unions and their leaders. It rivals the palmiest days of prohibition thuggery in crime-ridden Chicago. Its being printed; Chairman Fred Hartley will send free copies so long as the supply lasts.

Drastic proposals of Senator Ball (R., Minn.) to outlaw industry-wide bargaining, the closed shop and closed unions, and union maintenance, are expected to be rejected by the Senate Labor Committee in drafting the composite bill to report out. Ball will offer each proposal in original form, as an amendment, on the Senate floor when the bill is up for passage. If Southern senators

line up, chances are more than even that all of Ball's amendments will be adopted. Majority of Republican senators favor them.

House Labor Committee's anti-racketeering bill, aimed at union lawlessness and gangsterism, will be drastic and sweeping. Rules Committee will give it the green light, with prospects of House passage by about 5 to 1. Bill is being carefully written in consultation with the House Judiciary Committee to stand up under expected court attacks and constitutional tests.

George P. McNear, ambushed and murdered railroad president, testified to the House Labor Committee ten days before his death on his troubles with unions. As he left the witness stand, he said privately to Chairman Hartley: "I fear my life is in danger because of the things I've told you today in answering questions of this committee." At 4 p. m., before he was killed on a darkened street he mailed a supplementary statement for which Hartley had asked. Hartley said: "I believe he was murdered because of his testimony to our committee."

A bill to outlaw the Communist Party and drive subversive groups from unions is being drafted by House Labor and Judiciary Committee members. Testimony to the House committee shows some of the largest C. I. O. unions, including electrical and automobile workers, in grip of fanatical communist cells. This bill will be the first attempt in the history of Congress to deal with, and outlaw, the Communist Party.

New House Labor Committee is described as the "toughest" in House history in dealing with recalcitrant, obstreperous or threatening witnesses. C. I. O.'s Philip Murray "talked down" to the Senate Labor Committee and met only mild rebukes. He dodged appearing before the House committee, and sent Van Bittner in his place. Bittner spent a devastating day as witness, withering under the blasting questions of toughminded House members.

Portal-to-portal pay bill swept through the House by an overwhelming 6 to 1 victory, restricting every form of back pay claim under the Wage-Hour Act. Vote was 345 to 56; the heaviest in a generation for any bill opposed by big unions. For the bill, 115 Democrats joined 230 Republicans, while 50 Democrats joined five Republicans and one communist in opposition. Two Democrats and one Republican, in favor, were paired with three Democrats opposed to the bill.

Outcome of the portal-to-portal vote reveals that the labor "bloc" of 117 to 127 in the last House has shrunken to about 59 in the present House, of which 27 are from three states (N. Y., Ill. and Cal.), and the remainder scattered through northern and Pacific coast states.

Republicans in both houses are determined to remove one-sided equities of the Wagner Act. This law will be streamlined largely in accordance with proposals of Rep. Howard Smith (D., Va.) in 1939. New amendments will establish union responsibility, outlaw jurisdictional strikes and boycotts, ban maintenance of union provisions, and set up democratic procedures in local unions. Labor Board's powers will be strictly defined, and its decisions made reviewable in Federal courts.

Congress is taking time to explore the whole difficult, complex labor problem before legislating. Those who ask repeal of all existing laws, with labor and management left to "shoot it out" across the street, expect too much. Congress is not operating in the dark or without careful diagnosis. New law will seek balance, equity, good faith and responsibility in collective bargaining and management-labor relations.

Old type of bludgeoning labor leader, proud to have risen from the ranks, is on the way out. Under new order, unions can be expected to seek talented lawyers, and expert statisticians and technicians, as their spokesmen. New law will wipe out the jungle of brute force, ignorance, crafty and shifty irresponsibility, and budgeoning threats, and make room for skillful and trained men. Communists will be barred by law.

Impatience is evident in spots over failure of Congress in two months of Republican control to repeal the New Deal, reduce taxes, control labor, put the bureaucrats in their place, cut government spending and reduce the public payroll. Congress has done as much as any new Congress at this stage. It is seeking to legislate sensibly, judicially, dispassionately, effectively, and in the interest of the whole country.

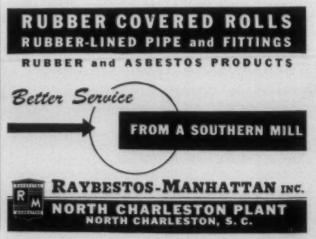
Generous, paternalistic subsidies and grantsin-aid in 12 years have taken \$49 billion from
Uncle Sam's Treasury, of which \$9.7 billion were
stabilization and non-crop growing grants to farmers. They run from plowing under cotton and
killing little pigs to O. P. A. subsidies on butter,
meat and kerosene. Under this House Appropriations Committee the big shell-out is tapering off.
Big spenders are screaming of maladjustments
and poverty in the offing.

House will peg the slash in next year's \$37.5 billion budget at about \$5.5 billion. Failure to remove excise taxes increases the Treasury's prospective revenue next year to \$38.8 billion. Out of the \$6.2 billion difference, a 20 per cent across the board slash in personal income taxes, applicable to all brackets, will go through both houses. Tax cut will be about \$3.5 billion, with remainder of the cut applied to the national debt.

The Smith-Connally Act, with power to seize strike-bound industries, will be extended indefinitely beyond present expiration on July 1. Intent is to head off a coal strike by John Lewis when government control of coal industry ends if Congress has not finished with new labor legislation by then. The extension will expire with new labor legislation.

More "free speech" will be enjoyed by employers hereafter, and workers are in sight of reclaiming the right to form their own independent union, outside of C. I. O. or A. F. of L. Able legalists among House members are drafting new statutory provision to cover this point.







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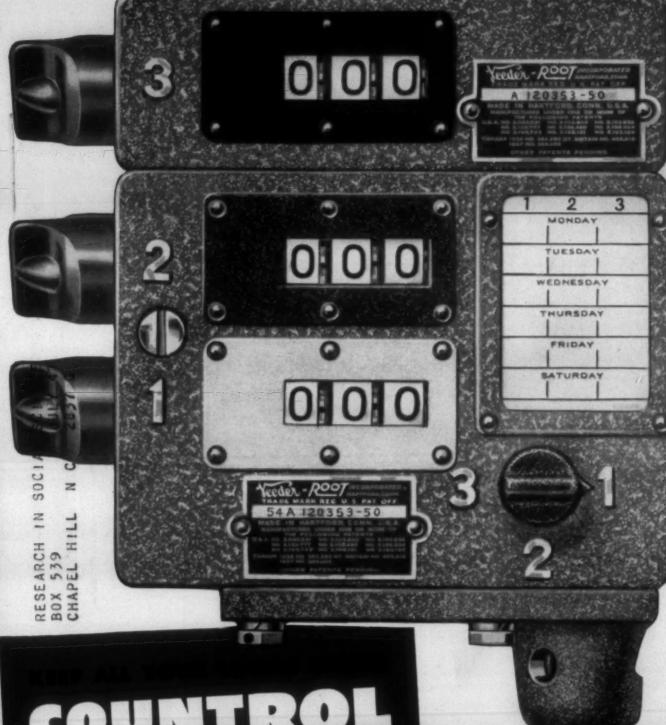
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